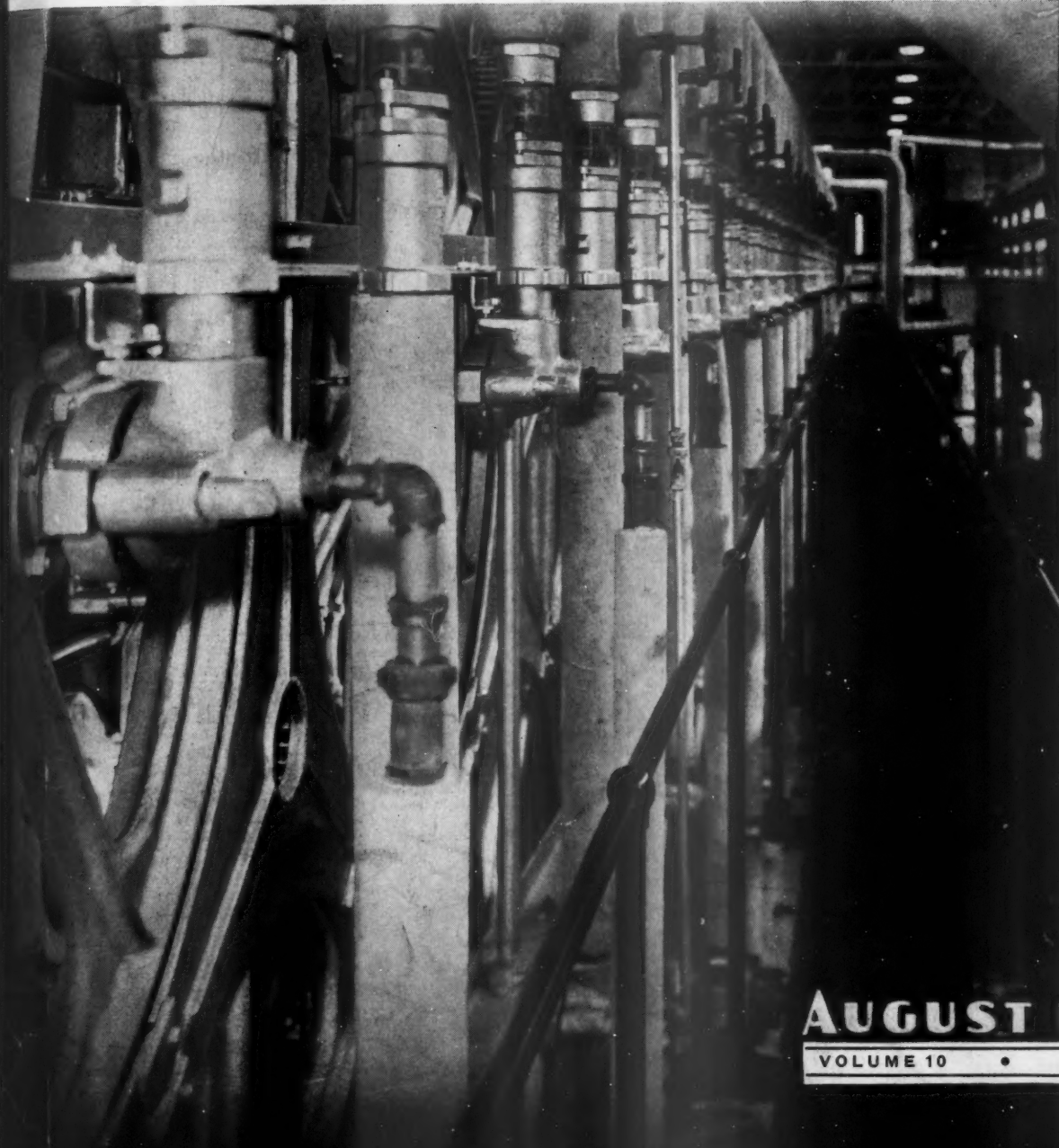


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VOLUME 10 • NUMBER 8



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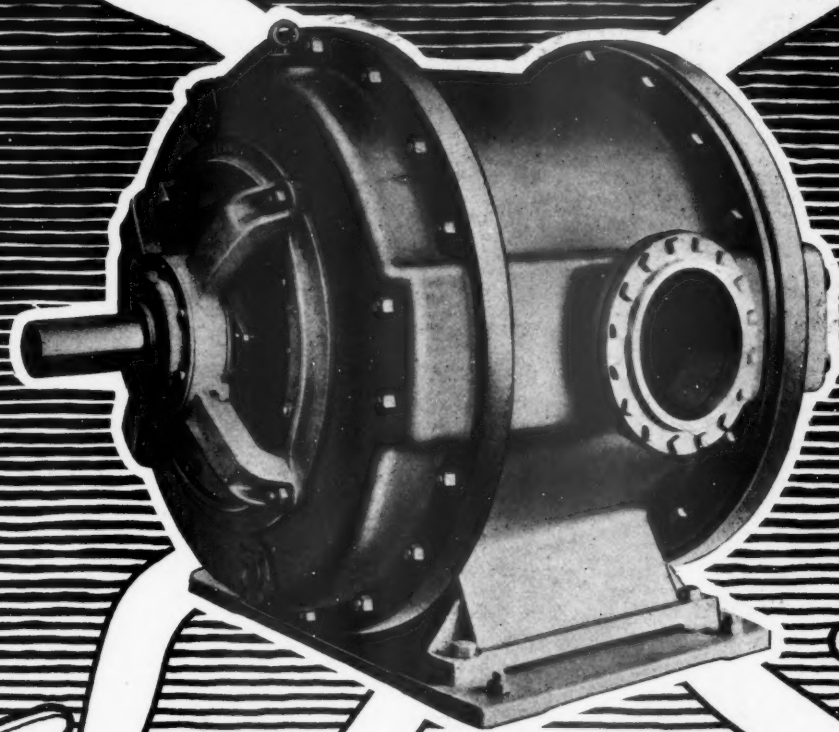
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PACIFIC PULP & PAPER INDUSTRY

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MILLER FREEMAN, Jr., Circulation Manager

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AUGUST • 1936

GRAYS HARBOR TO EXPAND PULP PRODUCTION

Additional 50 Tons Per Day
Will Supply Paper Mill

On July 30th Mr. W. S. Lucey, general manager of the Grays Harbor Pulp & Paper Company, announced that the daily pulp producing capacity of the mill would be enlarged by about 50 tons, bringing the total daily capacity up to 250 tons per day. Plans are being drawn and equipment ordered. Construction is expected to begin before September 1st. From 50 to 60 additional men will be employed when the new unit is producing. The additional producing capacity or expected to be ready for pulp making in from eight to ten months.

In the past year the Grays Harbor Pulp & Paper Company has done several things which has prepared for the recently announced expansion. The boilers and power plant was recently expanded and improved to provide additional steam for the new unit. In June of this year a new and modern log break down and wood preparing plant was completed with a capacity sufficient to more than take care of the requirements of the mill when the expansion is completed.

The new unit will embrace a five story concrete addition to the digester building, 30 by 32 feet and a 66 by 140-foot two story addition to the screen room and the bleach plant.

The announcement made by Mr. Lucey pointed out that when the present plant was built it was designed for expansion to a six digester 300 tons per day pulp mill. Only three digesters were installed at the start but a fourth was added in 1934 (see February, 1935, issue of this journal). A fifth digester will now be added.

When the present improvement is completed the company will still have room for another 50-ton expansion or a total of 300 tons per day.

To Supply Paper Mill

The announcement said that the new 50-ton pulp unit would supply the paper mill with its requirements, releasing the other four digesters for the production of high grade rayon and bleached sulphite pulps. Grays Harbor entered the

rayon pulp market late in 1934 with the addition of the fourth digester.

The efficiency of both the pulp mill and the paper mill is expected to be raised by the new addition. In the past pulp for the paper machine was cooked in first one digester and then another. Now, the new digester will be devoted entirely to producing for the paper machine and the remaining four digesters will not be switched but will operate steadily on one type of pulp.

To provide the additional 50 tons per production considerable new equipment will be added. About 30 additional dryers will be added to the Black-Clawson vertical drying machine now drying pulp, to furnish the needed extra capacity. More flat screens, washers and bleaching equipment will be purchased together with one new digester.

Negotiations are under way for the additional water needed but at the time of going to press the matter had not been settled. It is possible that Aberdeen's unused industrial water system may be tapped for the needed 3,000,000 extra gallons per day. On the other hand the company may expand its own water system or the city of Hoquiam might possibly install an industrial water system and sell to the company.

A new 10,000,000 gallon water filter plant will be built to provide pure, clean water for mill operations.

Will Buy More Logs

With the new log break down plant in operation and the new unit requiring about 50,000 board feet or 100 cords additional wood every operating day, the Grays Harbor Pulp & Paper Company will buy logs on the market and keep them for use in a new and large storage boom now being constructed along the river shore.

The Aberdeen Daily World in commenting upon the expansion program of the Grays Harbor Pulp & Paper Company, said in part:

"Industrially, the Harbor has had a

notable advance this year. It has added, besides the expansion of the pulp plant, a new plywood plant, a battery plant, a chair factory enlargement and two new pilchard plants. Three of these are new industries. While these operations, except the pilchard, use timber, they all represent a diversification of the Harbor industry, and that is what we need and are rapidly acquiring. We still depend upon the timber industry, but it is taking new form, and one that insures permanence. Our development and our future lie in the direction of pulp and paper, plywood and veneer, and wood-working plants, together with the continued development of fishing and agriculture—the pea farms will bring in half a million dollars or so this year. Even with these new plants and plant expansions, we are still shipping too many logs out of the Harbor, logs for which we should have use or make use here."

The original three digester unit of the Grays Harbor Pulp & Paper Company was placed in operation in September of 1928. Following arrangements between the Grays Harbor Pulp & Paper Company and the Hammermill Paper Company of Erie, Pennsylvania, the Grays Harbor Corporation was jointly formed to build and operate a 50 tons per day paper mill adjacent to the new pulp mill.

Construction of the paper mill unit began in November, 1928, and was completed during the latter half of 1929. Hammermill developed a new paper made from Western hemlock bleached sulphite pulp, and called it Management Bond. The new paper has become widely and favorably known as a companion product to the famous Hammermill Bond.

In his announcement of the new unit Mr. W. S. Lucey, general manager, said that the Grays Harbor Pulp & Paper Company is now furnishing employment to about 600 permanent workers and to about 50 more on temporary work. The increase in production capacity will bring the permanent payroll to about 650 persons.

ST. REGIS REBUILDING UNDER WAY

The modernization program of the St. Regis Kraft Company at Tacoma is well under way with a large crew of men at work under the direction of Mr. H. D. Cavin, resident engineer.

Briefly the work embraces the following projects. The company is building its own shipping terminal. Over 200,000 cubic yards is being dredged from the waterway and a new dock will be built immediately to accommodate ocean going freighters.

The new filter plant has been started under the direction of the Shibley Company, water treatment engineers. The log break down mill is under construction. It will contain a 24-foot shotgun feed carriage with a single band saw mill. Two 84-inch Sumner chippers have been ordered together with Sumner shaker type chip screens.

The shredded pulp dryers have been removed and foundations are being placed for the new dryers which are expected to arrive September 25th.

Remodeling of the boiler plant is under way and the Wagner furnace walls will be water cooled. It is planned to install the Tomlinson recovery system later on.

All construction was under way the first of the month with the exception of the buildings for the screens, the riflers and the bleaching system, and these will be started shortly after the middle of August.

Twenty-eight Smythe flat screens have been ordered from Ray Smythe. Part of the bleaching equipment has been purchased from the Improved Paper Machinery Corporation. Pumps are to be furnished by the Nash Engineering Company and the Bingham Pump Company. Two new model Baldwin-Southwark hydraulic presses have been ordered for pulp baling. Three Elwell-Parker electric trucks have been ordered and one Willamette lumber type carrier.

Work is being rushed in order that the St. Regis kraft pulp mill will be able to start operations late in the fall.

CAMAS TO USE MUCH STAINLESS STEEL

The new acid circulating systems to be installed shortly in the sulphite pulp department of the Crown Willamette Paper Company's mill at Camas, Washington, will employ from 180 to 200 tons of stainless steel which will be furnished by the Electric Steel Foundry of Portland, Oregon.

The Camas mill has had a circulating system on one digester for several years. Seven additional digesters will now be equipped with circulating systems, leaving but one small 6 ton digester without circulating equipment.

The seven systems will be installed during the fall, the job will probably be completed about the first of the year.

At the Lebanon, Oregon, mill of the Crown Willamette Paper Company a circulating system was recently installed using 30 tons of stainless steel cast by the Electric Steel Foundry of Portland.

LEADBETTER MAKES TRIP TO ENGLAND

Mr. Fred W. Leadbetter, of the Oregon Pulp & Paper Co., Salem, Ore., and the Columbia River Paper Mills, Vancouver, Wash., left early in July for a hurried trip to England, landing on his return in New York on August 1.

RESIGNS AS TRUSTEE

Resignation of National Trust Company as trustee for Vancouver Kraft Mills, Ltd., the Port Mellon, B. C., project, has added a new complication in the somewhat tangled affairs of this enterprise. However, bondholders and others interested in the company are hoping to hold a series of conferences during the summer to unravel the snarl so that the mill may be placed in operation before long. With the pulp market showing greater activity, there has been considerable encouragement for those wishing to place Vancouver Kraft in the producing column.

JOACHIM WITH PIONEER-FLINKOTE

Mr. Herman L. Joachim recently became associated with the Pioneer-Flinkote Company as engineering consultant.

BUILDING BLEACHING PLANT

A Bellmer system bleaching plant is being built at the plant of the Columbia River Paper Mills, Vancouver, Wash., to be completed in late August. It will have a capacity of 75 tons and is so constructed as to permit easy doubling of the capacity. This plant is of the single stage type, with provision made for later addition of a second chlorination stage.

SPAULDING TO INSTALL CYLINDER DRYER

The Spaulding Pulp & Paper Company of Newberg, Oregon, has purchased a cylinder drying machine, trimming a 96-inch sheet, and will have it in operation around October 1st, according to Superintendent J. B. Wilt. Auxiliary equipment includes a 600-ton hydraulic press and a sheet cutter.

Production will be increased about 20 tons per day by the addition of the new machine. When the cylinder dryer is in operation, the Spaulding mill will produce, in addition to unbleached sulphite pulp, a small tonnage of bleached sulphite sheet pulp.

The volume of the company's sales in the domestic market is steadily expanding.

SANDWELL GOES TO TASMANIA

Mr. P. (Dick) Sandwell, pulp and paper mill engineer of Vancouver, B. C., left Vancouver July 20th in company with Mr. L. R. Benjamin for Hobart, Tasmania.

Mr. Sandwell will serve as acting chief engineer of the Derwent Valley Paper Company, Limited, of Hobart, Tasmania during the period of constructing the kraft pulp, groundwood and news print mill. He will return to Vancouver the latter part of October. Mr. Benjamin is technical director for the company and he has been in the United States a large part of the time during the past two years studying manufacturing methods and equipment.

Mr. Sandwell was born in England and received his engineering education in London. During the war, from 1914 through 1918 he served with the British Artillery and Engineers in France. He came to Canada in 1920, upon his discharge from the army, and for a brief period was with the old Whalen Pulp & Paper Company at Swanson Bay, B. C.

He joined the Powell River Company's organization in 1920 and was assistant resident engineer during the construction period from 1922 to 1926, during which time the output of the mill was increased 250 tons per day.

From 1926 until 1932 Mr. Sandwell was resident engineer at Powell River. During his service in this capacity the mill output was increased another 150 tons through the installation of No. 7 paper machine and a new grinder room unit. The Lois River hydro-electric unit and other auxiliaries were built during his term as resident engineer.

Mr. Sandwell served as assistant resident manager for the Powell River Com-

pany from 1932 to 1934, resigning to go into private engineering practice in Vancouver where he has built up an engineering business specializing in pulp and paper mill work. His firm is known as Sawford and Sandwell.

Mr. Thorold Fink, chairman of the board of the Derwent Valley Paper Company was in the United States last winter, later going on to England before returning to Australia.



P. SANDWELL
Tasmania until October

SOUNDVIEW STARTS CONSTRUCTION OF NEW UNIT

The construction of the new 120 tons per day unit of the Soundview Pulp Company's bleached sulphite pulp mill at Everett, Washington, is moving ahead rapidly under the supervision of Mr. J. H. McCarthy, resident engineer. Mr. McCarthy was the resident engineer in charge during the construction of the Soundview mill in 1930 for Mr. Hardy S. Ferguson, who designed the pulp mill. Mr. Ferguson is consulting engineer on the new pulp making unit.

Assisting Mr. McCarthy is Mr. John Moak, who was assistant to Mr. O. C. Schoenwerk during the construction of the new Weyerhaeuser unbleached sulphite pulp mill at Everett, and which was completed in June.

The general contract for construction has been let and includes a new pulp storage building, the remodeling of the present storage building to be used as the new machine room, an acid plant, digester building, bleach plant and blow pits.

The new pulp drying machine has been ordered from Rice, Barton & Fales, Inc., of Worcester, Massachusetts. It is to be 154 inches wide, and will consist of a fourdrinier and open dryers. A steam turbine will drive the machine through enclosed gears. Flat screens of which there will be 44 are to be made by the Improved Paper Machinery Corporation of

Nashua, N. H., and will have all bronze vats and the Dunbar drive. The screens will have 14 plates each. Three Impco centrifugal rubber lined knotters have been ordered together with four Impco deckers and one multiple stage counter current washer.

Five bleach washers have been ordered from Oliver United Filters, Incorporated. The new water filter plant has been designed by and will be built under the supervision of the Shibley Company. In the steam plant one boiler will be rebuilt to take care of the requirements for the new unit.

The three new digesters will be equipped with both Chemipulp system and circulating systems to provide maximum cooking flexibility. The Jenssen acid system will be enlarged to take care of the new addition.

The new 120 tons per day addition to the Soundview pulp mill will be in operation a separate unit capable of producing at the same time pulp of a type different from that produced in the present mill. When the new unit is completed in March, 1937, the daily production of the Soundview Company will have been increased by 60 per cent to 320 tons of bleached sulphite pulp per day.

Mr. Leo S. Burdon is manager of the Soundview Pulp Company.

INCREASING KRAFT CAPACITY AT CAMAS

The kraft pulp capacity of Crown Willamette Paper Co., Camas, Washington, is being increased about 35 per cent through the addition of one digester and the replacing of two old digesters with new equipment, making a total of four digesters in this department. Prior to the additions the capacity was 110 tons; in late August or early September, when the improvements are completed, the capacity will be 150 tons.

During the installation of equipment, the production of kraft pulp has not been interrupted, one unit being replaced at a time and the work so handled that the output has not been stopped.

In connection with the kraft pulp improvement program at the Camas mill, a 150 ton Tomlinson liquor recovery unit is being installed and will be ready for operation between October 1 and 15. It

replaces one of the three present recovery units. A waste heat boiler in connection is capable of operating at 400 pounds pressure although the boiler will be operated at lower pressures.

CHEMIPULP SYSTEM AT WEST LINN

The West Linn, Oregon, sulphite pulp mill of the Crown Willamette Paper Company is being equipped with a Chemipulp system capable of handling 100 tons of sulphite pulp per day. It will go into operation shortly after the middle of August.

A digester type acid accumulator is being put in in connection with the Chemipulp System. It can if necessary be quickly converted for use as a digester.

Chemipulp will serve four 15 by 49 foot digesters. Stainless steel fittings cast by the Electric Steel Foundry are being used.

The new digester type accumulator, 18 by 50 feet, was fabricated by the Willamette Iron & Steel Corporation of Portland.

B. C. TAPPI MEETING POSTPONED

The plan for holding a September meeting of the Pacific Coast section of TAPPI in Vancouver, B. C., has been postponed. The British Columbia members extended a formal invitation to hold a meeting in the province, but this invitation has been held over and the tentative plan is to hold a meeting later in the year in British Columbia.

Plans are now being worked out for the fall meeting of TAPPI, which probably will be held the second week in October.

OLYMPIC FOREST TO PAY DIVIDEND

The Olympic Forest Products Company of Port Angeles, Washington, has declared an initial \$2 dividend on the 40,000 shares outstanding of the cumulative \$8 preferred stock. Payment will be made September 1st to stock of record August 18th.

WEYERHAEUSER EXPANDING BLEACH PLANT

Additional bleach plant capacity is being added to the Longview, Washington, bleached sulphite mill of the Pulp Division, Weyerhaeuser Timber Company, to better balance the mill.

SUPERINTENDENTS' MEETING WELL ATTENDED

Ed Wood, one of the operating superintendents, Pulp Division, Weyerhaeuser Timber Co., Longview, Wash., returned at the end of July from a six weeks trip through the Middlewest and South. Mr. Wood made the trip East to attend the meeting of the American Pulp & Paper Mill Superintendents' Association meeting at Grand Rapids, Mich., on June 24 to 26, after which he visited some eastern mills.

Mr. Wood was much interested in the paper of Dr. John M. McGovern, of the Forest Products Laboratory, Madison, Wis., which, from the theoretical standpoint, proved many of the processes being used at Longview.

There is evidence of improvement among eastern pulp and paper mills. A number of improvements are being made and more are contemplated. Before returning he visited the plant of the Champion Fibre Co., Canton, N. C., where he had his first job in the pulp and paper industry.



SOUNDVIEW CONSTRUCTION IS UNDER WAY

The preliminary work for the new 120 tons per day unit of the Soundview Pulp Company at Everett, Washington, shows in the above picture.

GREAT NORTHERN SETS NEWS PRINT PRICE AT \$42.50

Two developments during the last few days left newsprint manufacturers wondering whether they should smile or scowl. One was the widely publicized statement of Lord Rothermere, British publisher, heavily interested in Canadian newsprint mills, that Canada should not sell newsprint at less than \$50 a ton net at the mills. The other was the action of Great Northern Paper Company in offering contracts to its customers for 1937 newsprint at \$1.50 a ton higher than the 1936 price.

Reaction of newsprint manufacturers in British Columbia as elsewhere in Canada was that Lord Rothermere was excessively optimistic, and that \$50 a ton was hardly to be expected as a reasonable price for next year. With reference to the price set by Great Northern, the attitude was one of frank disappointment. Whether the Great Northern price will set the year's figure for the entire industry, as happened before, remains to be seen.

M. A. E. McMaster, vice-president and general manager of Powell River Company, largest newsprint producer on the Pacific Coast, said that an increase of \$1.50 a ton would not begin to meet the increase in production costs, and he hoped that the industry as a whole would set a higher basic price.

The feeling among most manufacturers was that the increase would approximate \$2.50 a ton. As the current base price is \$41, it would bring the price for 1937 contracts to \$43.50 a ton. There has been a good deal of talk of a \$5 increase, and this would be more in line with the advance in materials and labor costs, but a boost of that amount was regarded as probably higher than the publishers would be prepared to swallow all at once.

Lord Rothermere's statement, contained in a letter to G. T. Clarkson, receiver of Abitibi Power & Paper, and L. J. Belnap, president of Consolidated Paper Company, was to the general effect that Canadian newsprint manufacturers should abandon their "ridiculously pessimistic views" and throw off the yoke of intimidation of large users of paper in the United States. The statement was of special significance inasmuch as Rothermere, besides being one of the greatest publishers in the world, with newspapers and magazines of enormous circulation, is in control of the Empire Paper Mills in England, the Anglo-Newfoundland Development Company in Newfoundland and Anglo-Canadian Pulp & Paper Mills in Quebec. Rothermere and his associates are also owners of heavy holders in Consolidated Paper Company and Abitibi Power & Paper.

Negotiations between mills and publishers regarding the new contract prices usually begin during the next few weeks. Although the \$50 a ton price may be discounted at present for all practical purposes, it may give a sort of moral support to the newsprint men in their discussions. The net mill price of \$50 a ton talked about by Rothermere is equivalent to \$57 a ton on paper delivered in the New York and Chicago zones, and contrasts with the present \$41. An in-

crease of \$16 a ton, such as this would be, would be far beyond anything advocated by even the most "bullish" of the Canadian manufacturers.

The suggestion of Rothermere is even more startling when considered in relation to production. Last year Canadian mills produced in round figures 2,750,000 tons of newsprint, with a gross revenue at \$41 of nearly \$113,000,000. If the Rothermere price was effective, the revenue would have been \$44,000,000 more. The dollar gain would be even greater in relation to this year's production, which is considerably in excess of last year's.

Rothermere believes that newsprint will soon enter a seller's market, and that Canadian mill men should exert the pressure they have available. He pooh-poohs the idea that the United States could obtain its newsprint from another source, such as Scandinavia and Finland, and he says that Finland, for instance, would be unable to meet a further demand of 100,000 tons of newsprint annually.

Rothermere thinks that \$50 a ton is a fair price, and that Canadians would not lose any business if they insisted on getting that price.

Mr. A. F. White, vice-president of the St. Lawrence Corporation, recently told stockholders that, "the so-called fall clause is being discontinued by the St. Lawrence group of companies. This clause was inserted in news print contracts when production started to outstrip consumption and there developed a buyer's market, with the seller forced to agree to any stipulation made by the buyer. Under this system, which has prevailed for a number of years, publishers generally could induce one company to undersell and thereby break the price level for the entire industry. Largely due to this system news print prices were forced progressively lower."

The above statement may result in an uneven price structure within the news print industry during 1937. Some Canadian news print executives feel that their mills will still be able to raise the price to \$45 because of the inability of American mills to produce anywhere near enough news print and because they feel the growth of European demand will prevent Sweden and Finland from exporting much more than the present tonnage to the United States.

Demand has been steadily increasing and the question now appears to be whether it has reached a point where an uneven price structure can be maintained.

SURAUD VISITS RAINIER

Mr. Jacques Suraud, European sales agent for the Rainier Pulp & Paper Company, visited the company's mill at Shelton, Washington, the latter part of July. While on the Pacific Coast Mr. Suraud also inspected the Grays Harbor Pulp & Paper Company mill at Hoquiam and the Olympic Forest Products Company plant at Port Angeles, Washington.

Mr. Suraud's headquarters is in Paris, France.

NEW FIR-TEX BOARD

A new two-tone Fir-Tex building board, called "Deluxe," recently put on the market is meeting with a substantial demand. "Deluxe" is a coated board, designed primarily for interior work, where an insulator alone is desired. "Deluxe" is available in straight board and also in beveled tile. It can be washed, kalsomined, painted, or used in the natural white and Fir-Tex color.

The coating consists of China clay and casein and is put on at the wet end with a rubber roll. After the board comes through the drier it is calendered. The coated board does not chalk. The "Deluxe" Fir-Tex is now made in 1/2-inch and 3/8-inch thickness. The idea for this board was conceived by Mr. R. W. Simmeral, manager.

The plant of Fix-Tex Insulating Board Co., St. Helens, Ore., is running four days a week. Demand for Fix-Tex is steadily increasing. An insulating board is now considered a necessary part of good home construction in the Southwest and in many sections of the Middle West. The heavy insulation demand is gradually picking up also.

The capacity of the Fir-Tex plant has gradually been expanded until now the daily capacity is 35 per cent greater than originally. The present 24-hour capacity for the various thicknesses of board is: 3/8-inch, 290,000 feet; 1/2-inch, 220,000 feet; 1-inch, 130,000 feet; 1 1/2-inch, 80,000 feet.

Very simple equipment is employed for the manufacture of "Deluxe" Fir-Tex. Mixing tanks and pumps were installed for the mixing of the China clay and the milk casein. Mr. Jack Hubert is plant superintendent, Mr. Thomas Parks is plant engineer and Mr. A. C. Salisbury is chief chemist. Experimental work in the laboratory is being increased.

ARMBRUSTER-OLSEN MARRIAGE

Fred Armbruster has entered the ranks of the benedicts. On June 15 he and Miss Audrey Olsen, of Everett, Wash., were married in Everett. The happy young couple are now comfortably settled at Longview, where Mr. Armbruster is back on the job in the Pulp Division, Weyerhaeuser Timber Co.

HOME BUYING BRISK

The home ownership bee is very active about the plant of the Pulp Division, Weyerhaeuser Timber Co., Longview. Among those who have recently purchased homes in Longview are Mr. Norman Kelly, Mr. H. R. Heuer and Mr. Ed Wood.

COURSE IN PULP AND PAPER MAKING

A course in pulp and paper manufacture was recently completed by about 150 members, all employees of Longview Fibre Co., Pacific Straw Paper & Board Co., and Pulp Division, Weyerhaeuser Timber Co., Longview. The course lasted eight weeks and was given through the vocational department of the Longview public schools. Dr. G. H. McGregor, of the Weyerhaeuser organization, delivered eight lectures and conducted the course in which much interest was shown.

FRAMPTON ATTENDED CONVENTION

Mr. Charles G. Frampton, manager, California Fruit Wrapping Mills, Inc., Pomona, Cal., attended the recent superintendents' meeting in Grand Rapids, Mich.

RAY SMYTHE REPRESENTING RICE, BARTON & FALES

Mr. Ray Smythe, the well-known equipment manufacturer and representative of Portland, Oregon, has been appointed West Coast representative for Rice, Barton & Fales, Inc., of Worcester, Mass., builders of paper mill machinery.

The announcement was made by Mr. Lester M. Start, secretary of Rice, Barton & Fales.

Rice, Barton & Fales, Inc., were established in 1837 and have been engaged in the manufacture of paper mill machinery ever since. They have built a number of Pacific Coast machines, including Minton Vacuum Dryers for the Olympic Forest Products Company and the Weyerhaeuser Timber Company, Pulp Division, at both Longview and Everett, Wash.

FINNISH PULP EXPORTS UP 30%

The exports of pulp from Finland for the first six months of 1936 rose 30 per cent above the exports for the same period of 1935.

Total chemical pulp exports for the six month period of this year was 485,316 tons compared with 372,466 tons in the same period of 1935. Sulphite accounted for 336,560 tons in 1936 against 273,140 tons in 1935. Sulphate totaled 148,756 tons in 1936 compared with 99,326 tons in 1935.

The percentage increase in exports of sulphite pulp for the first six months of this year over the same period in 1935 was 23%. The 1936 increase in sulphate pulp exports over 1935 was 49%.

The above data was taken from official figures published in the July 15th issue of the Finnish Paper & Timber Journal.

ST. HELENS OPERATING STEADILY

St. Helens Pulp & Paper Company, St. Helens, Ore., is operating steadily, with a good demand for its products. Mr. Max Oberdorfer, president, who accompanied by his family, is spending the summer in Europe, is expected back in the early fall.

INSTALL HOG FUEL EQUIPMENT

Pacific Straw Paper & Board Company, Longview, Wash., has installed equipment for the manufacture of hog fuel, which is utilized by the company in generating power and steam. Slabs are purchased from adjacent tie mills and these are put through the hog for fuel purposes. The company is operating steadily and piling up a substantial reserve of raw material.

RAYLIG COVERS JERSEY ROADS

Raylig, the waste sulphite liquor road binder, is being used to make 650 miles of roads and paving shoulders in New Jersey dust-free, according to an announcement by Mr. W. G. Drummond, engineer in charge of Raylig sales for the Rainier Pulp & Paper Company of Shelton, Washington.

LOWENSTEIN VISITS COAST

Mr. A. B. Lowenstein, accompanied by Mrs. Lowenstein, visited Port Townsend and other points on the Pacific Coast during July. Mr. Lowenstein, who was formerly manager of the National Paper Products Company's mill at Port Townsend, is now Eastern manager with headquarters in New York City.

PULP AND PAPER IMPORTS UP PULP EXPORTS DROP

In the Monthly Statistical Summary for May (released August 1st) published by the American Paper & Pulp Association the imports of paper for May, 1936, are shown to have risen rather remarkably over the paper imports for May, 1935. Quoting from the Summary:

"Total paper imports during May, 1936, showed an increase of 14.8 per cent over the May, 1935, level. Imports of news print paper during May, 1936, showed an increase of 15.5 per cent over May, 1935, and the following classifications showed increases in May, 1936, over May, 1935: Printing papers (excluding news print), 28.4 per cent; Fine papers, 42.1 per cent; Wrapping papers, 136.5 per cent, and Boards, 15.3 per cent. Miscellaneous papers show a decrease of 35.4 per cent.

"Wood pulp imports for May, 1936, compared with May, 1935, showed an increase of 16.7 per cent for Groundwood, a decrease of 8.1 per cent for total Sulphite pulp, an increase of 17.3 per cent for Sulphate pulp, and an increase of

6.9 per cent for Soda pulp. Total wood pulp imports for May, 1936, showed a 2.4 per cent increase over May, 1935. Pulpwood imports during May, 1936, increased 24.0 per cent over May, 1935."

Pulp Exports Drop

According to the U. S. Department of Commerce exports of wood pulp from the United States for the first five months of 1936 were 72,915 short tons compared with exports of 77,148 short tons exported in the first five months of 1935, a drop of 4,233 tons. However, the value of pulp exported in the first five months of this year exceeded the value of the same period in 1935 by \$7,254. The 1936 value was \$3,837,491 and in 1935, \$3,830,237.

The 1936 first five months pulp exports consisted of 37,632 tons of bleached sulphite pulp valued at \$2,545,640; 33,502 tons of unbleached sulphite pulp valued at \$1,191,187; 1,233 tons of soda pulp of a value of \$71,260 and 558 tons of miscellaneous pulp valued at \$29,404.

CROWN WILLAMETTE AND RAINIER OFFERS GROUP INSURANCE

The Crown Willamette Paper Company has offered a group insurance plan to employees combining both life and disability features. The plan went into effect August 1st and was heartily supported by the majority of employees.

The life insurance feature is new, group accident and sickness insurance having been in effect since April, 1933, with over 80 per cent of the employees participating.

The Rainier Pulp & Paper Company at Shelton, Washington, has made the same offer of grouped life, sickness and accident insurance to its employees.

ZOPOLIS TRANSFERRED

During July Mr. Peter Zopolis, chemist with the Grays Harbor Pulp & Paper Company at Hoquiam, Washington, was transferred to the Rainier Pulp & Paper Company's mill at Shelton, Washington.

FIBREBOARD PLANNING EDUCATIONAL PROGRAM

At the Vernon plant of Fibreboard Products, Inc., an educational plan for employees has been proposed and is now being worked out. A company text book is being written by department heads, covering the various phases of their operations, and it is expected that it will all be complete in about a year and a half. Frank Wheelock, chemist for the company, is very active in the movement and doing much work in connection with it. There will be two courses, one for the office and sale staff and covering plant men, and another for other employees.

FIBREBOARD (VERNON) IMPROVEMENTS

The Fibreboard Products, Inc., mill at Vernon, Calif., went on a four-shift basis July 15, adding 25 or 30 new men to the payroll. The plant had been working full time for several months, although on three shifts. Wage rates have also been raised to the scale in effect in the north. Employment is at a peak in the plant

now, there being about 410 men at work, more than at any time in the past.

Plant improvements now being carried out include the modernization of No. 2 beater room, in which Pacific Gear Works vertical reduction gear drive are being installed.

FARMER ON VACATION

U. Grant Farmer, superintendent of the Vernon plant of Fibreboard Products, Inc., left the latter part of July on a vacation trip to Lake Tahoe and points north. Preliminary plans called for a motor trip on up to Vancouver and possibly Powell River, unless Tahoe proved too attractive to leave.

CHRISTENSEN APPOINTED TO ACID PULPING COMMITTEE

Mr. Andreas Christensen of the British Columbia Pulp & Paper Co., Vancouver, B. C., has been appointed to the TAPPI Acid Pulping Committee, Pacific Coast Subdivision, by appointment of Mr. Vance P. Edwards, chairman of the committee, International Paper Co., Palmer, N. Y. The Pacific Coast Subdivision consists of the following in addition to Mr. Christensen: Mr. Norman Kelly, who is vice chairman of the general committee, Longview, Wash.; Mr. G. J. Armbruster, Everett, Wash.; Mr. E. A. Weber, Salem, Ore.; Mr. A. H. Lundberg, Seattle; Mr. A. G. Natwick, Camas, Wash.; Mr. W. S. Hodgson, Sumner, Wash., and Mr. A. S. Quinn, Seattle.

PREPARING FOR TERRITORIAL DAYS CELEBRATION

In between humping to keep up paper production, many members of the Hawley Pulp & Paper Company organization, Oregon City, Ore., present a weird appearance these days. They are growing "hair" for the Oregon City Territorial Days celebration, to be held August 21 and 22 and getting accustomed to the costumes they will wear. Miss Franchetta Mitchell is the Hawley candidate for queen of the celebration.

CROWN ZELLERBACH and CROWN WILLAMETTE SHOW IMPROVED REPORTS

Although the recently released reports of the Crown Zellerbach Corporation and the Crown Willamette Paper Company for the fiscal year ending April 30th, 1936, show increased earnings and an improved financial status, it is evident that the corporations are facing rising costs which prevent the earning of sufficient profit to pay normal dividends. The effects of the depression are still in evidence although excellent management is steadily erasing them.

The Crown Zellerbach statement said in part: "The operations for the year, after giving effect to all charges applicable to the period, but exclusive of your corporation's share of the consolidated net profit of the Crown Willamette Paper Company and its subsidiaries, resulted in a consolidated net profit of \$2,595,211.45. This is equivalent to \$10.36 per share on the Crown Zellerbach Corporation preference stocks outstanding in the hands of the public, or 57 cents per share on the common stock, after providing in full for the dividends of \$6 per share on the preference stocks. This compares with a consolidated net profit for the preceding fiscal year of \$1,407,513.97, equal to \$5.92 per share on the preference stocks.

"Including your corporation's share of the consolidated net profit of the Crown Willamette Paper Company and its subsidiaries of \$315,916.03, and after judgment of inter-company profit in inventories, the consolidated net profit amounted to \$2,919,127.48, equivalent to \$11.65 per share on the Crown-Zellerbach Corporation preference stocks, or 75 cents per share on the common stock. . ."

"Dividends of \$5.00 per share, totaling \$1,252,710.00 were paid during the year on Crown Zellerbach Corporation preference stocks, representing four quarterly dividends of 75 cents per share and two additional dividends of \$1.00 per share each. This compares with dividends of \$2.25 per share, or \$563,694.48, paid during the previous year. Accumulated unpaid dividends on the preference stocks at April 30th, 1936, amounted to \$4,635,027.00, or \$18.50 per share, of which \$4,384,585.00 or \$17.50 per share, was in arrears. A dividend of \$1.50 per share on the preference stocks as paid on June 1, 1936. After giving effect to dividends paid during the year and to a net surplus credit of \$897,876.87, in which are included the adjustments referred to above in respect to reduced depreciation charges for prior years and additional Federal income taxes applicable thereto, the net increase is earned surplus for the year was \$2,150,378.32.

"All properties have been maintained in excellent operating condition. Approximately \$900,000 was expended during the year in improvements and additions to plants and logging facilities."

The Crown Zellerbach statement went on to say that "The consolidated balance sheet reflects the continued sound financial position of your corporation. Consolidated current assets at April 30th, 1936, aggregated \$9,719,044.92 or 3.75 times current liabilities of \$2,626,230.18. Working capital amounted to \$7,092,-

814.74 compared with \$6,203,931.68 at April 30, 1935.

"As heretofore inventories have been conservatively valued and adequate reserves have been provided for receivables and investments.

"Your corporation on September 1, 1935, called for redemption \$3,750,000 of its 6 per cent debentures, of which \$724,000.00 were in treasury. Funds for the payment of the debentures were provided from a bank loan of \$3,000,000.00 bearing interest at the rate of 3 per cent per annum. Purchases of debentures during the year in advance of requirements amounted to \$35,000 and at April 30th, 1936, \$821,000.00 were in the corporation's treasury and \$3,379,000.00 were outstanding in the hands of the public. All of the outstanding bonds of the Washington Pulp & Paper Corporation, amounting to \$145,000.00, were redeemed on June 1st, 1935. Other long term indebtedness was reduced by \$414,300.00 during the year.

"Your directors by appropriate action on June 25, 1936, elected to redeem additional \$750,000.00 of the outstanding debentures on next interest date, September 1, 1936. Payment of the debentures in the hands of the public will be made from current funds."

Crown Willamette Paper Company

"The consolidated net profit of Crown Willamette Paper Company and its subsidiaries for the year amounted to \$1,961,916.03, or \$315,916.03 in excess of the full dividends on the preferred stocks of that company. This compares with a consolidated net profit of \$1,467,615.61 for the previous fiscal year.

"Dividends aggregating \$7.00 per share, or \$1,400,000.00, were paid during the year on the Crown Willamette Paper Company First Preferred stock. During the preceding year dividends of \$5.00 per share were paid. No dividends were paid during the year on the Second Preferred or Common stocks. After giving effect to dividends paid and to a net surplus credit of \$679,363.58, earned surplus for the year showed a net increase of \$1,241,279.61. Included in the net surplus credit are adjustments in respect to estimated reduced depreciation charges retroactive to May 1, 1930, and additional Federal income taxes applicable thereto to which further reference is made in this report.

"Accumulated unpaid dividends on the outstanding Preferred stocks of the Crown Willamette Paper Company at April 30, 1936, amounted to \$3,567,166.67. Of this amount \$3,430,000.00 was in arrears, representing \$11.00 per share on the First Preferred and \$30.00 per share on the Second Preferred. As pointed out in previous reports, until all accumulated preferred dividends in arrears are paid, no part of the earnings or funds of the Crown Willamette Paper Company will be available to the Crown Zellerbach Corporation.

"As at January 1, 1936, \$5,500,000.00 First Mortgage Sinking Fund 6 per cent Gold Bonds of the Crown Willamette Paper Company were redeemed, of which

\$302,000.00 were in treasury. Payment of these bonds was made in part from funds provided by bank loan of \$5,000,000.00, bearing interest at the rate of 3 per cent per annum, of which \$1,000,000.00 matures during the current fiscal year. Of this loan, \$4,500,000.00 is secured by \$5,000,000 First Mortgage Sinking Fund 6 per cent bonds of Crown Willamette Paper Company. At April 30, 1936, \$522,500.00 bonds were in the company's treasury and \$9,926,500.00 were outstanding in the hands of the public.

"On August 1, 1935, Pacific Mills Limited (a Canadian subsidiary of the Crown Willamette Paper Company) redeemed all of its outstanding First Mortgage 6 per cent Serial Gold Bonds amounting to \$1,102,500.00, and on February 1, 1936, \$500,000.00 of its Subordinated Mortgage 6 per cent Bonds were redeemed. At April 30, 1936, \$759,300.00 Subordinated Mortgage Bonds were outstanding in the hands of the public.

"Although the cash funds of the Crown Willamette Paper Company and its subsidiaries have been reduced incident to the redemption and purchase of bonds, the companies remain in sound financial condition with consolidated working capital of \$6,740,328.64, with a ratio of current assets to current liabilities of 2.75 to 1.

"More than \$2,000,000.00 was expended by these companies during the year for improvements and additions to plants and logging facilities. Adjustments have been made in the accounts giving effect to reduced depreciation charges and contemplated disallowance of losses on plant retirements as agreed upon with the United States Treasury Department for income tax purposes, which for the Crown Willamette Paper Company and its wholly owned subsidiaries were retroactive to May 1, 1930. The amount of depreciation and losses on plant retirements to be disallowed for the period to April 30, 1935, has been estimated at \$1,101,693.66, which together with other adjustments involves additional Federal income taxes estimated at \$164,797.13. Depreciation for the year ended April 30, 1936, has been taken on the new basis agreed upon with the Treasury Department and amounted to \$2,068,450.64. On the basis formerly used by the Corporation the charge would have been approximately \$2,300,000.00.

Review of Operations During the Year

"Our manufacturing subsidiaries operated to capacity during the year. The increased earnings of these subsidiaries were the result of increased tonnage volume and operating efficiencies and economies made possible by substantial expenditures for plant improvements. There was no general improvement in the prices of our products. An increase of \$1.00 per ton in the selling price of newsprint in our domestic market was made effective January 1, 1936. The effect on our earnings of this small increase was negligible as it was practically offset by increased freight rates. Earnings of Fibreboard Products, Inc., in which your Corporation has a pro rata share, showed substantial improvement. Interest expense was materially reduced incident to Bonds and Debentures redeemed during the year. Taxes, however, continued to increase, the total for the year ended April 30, 1936, of all your companies amounting to approximately \$1,900,000.00. This is an increase of 36 per cent compared with the total for the previous year.

"In common with almost all the other paper and pulp manufacturers of the Pacific Coast, labor agreements with the International Brotherhood of Paper Makers and the International Brotherhood of Pulp, Sulphite and Paper Mill Workers were extended for a period of one year from June 1, 1936. The first of these agreements was made effective August 1, 1934, and the existing agreements represent the second extension of those original agreements. The original agreements and subsequent extensions, which are uniform among the pulp and paper manufacturers located in the Pacific Coast states, cover the mills of the company in these states and granted wage increases to hourly workers, the last increase becoming effective June 1, 1936. The total effect of these wage adjustments since the fiscal year ended April 30, 1934, has been to increase the average hourly earnings of the employees approximately 20 per cent and over one-half of these increases have been granted since the N.R.A. was declared unconstitutional. The agreements also contain clauses designed to promote continuing harmonious relations between the company and its employees and to protect the company against interruption of operation as a result of labor disturbances. Wage adjustments effective June 1, 1936, will result in a substantial increase in labor cost in the current fiscal year.

"The Executives and Board of Directors of the Corporation take this opportunity of expressing their deep appreciation of the continued co-operation and fine spirit manifested by the staff and employees."

The above report was submitted to the stockholders by Mr. I. Zellerbach, president of the Crown Zellerbach Corporation.

FRED WELEBER MARRIED

Mr. Fred Weleber, chief chemist for the Hawley Pulp & Paper Company of Oregon City, Oregon, was married in Seattle July 5th to Miss Caroline Parker of Great Falls, Montana. The bride's father, the Reverend Doctor B. E. Parker of Great Falls, officiated.

JERMANN PROMOTED

Mr. Leo Jermann, adjuster in the Crown Willamette Paper Company's bag factory at Camas, Washington, was recently promoted to the position of night superintendent of the bag factory.

Mr. Jermann has been with the Crown Willamette organization continuously since 1909 with the exception of a period from 1917 until 1921. Upon his appointment to the new position Mr. Jermann resigned as president of the Camas local of the International Brotherhood of Pulp, Sulphite & Paper Mill Workers.

CHARTERS EAST

Mr. George Charters, assistant mill manager of the Crown Willamette Paper Company's Camas, Washington, mill, left July 15th for the East on a combined vacation and business trip. He will visit a number of paper mills before returning to Camas.

BUILDING NEW STACK

The Puget Sound Pulp & Timber Company of Bellingham, Washington, has just completed a 204-foot reinforced concrete smokestack replacing the present steel stacks. The permanent concrete stack was built to avoid the heavy replacement cost of steel stacks, according to Manager Ralph M. Roberg.

INLAND EMPIRE PRODUCES BETTER NEWS PRINT

With its issue of July 2nd, the Inland Empire News, published in Hillyard, Washington, began the use of a higher grade news print manufactured by the Inland Empire Paper Company of Millwood, Washington.

The newspaper comments in part as follows: "Compare it with any other newspaper and notice how much whiter and heavier this paper is. It was made especially for the Inland Empire News by the Inland Empire Paper Company. They claim that this paper is about 12 per cent more durable and that it will not yellow as quickly with age.

"Type, illustrations and pictures will all stand out more clearly, making it easier to read. The paper has a smooth finish, yet will not glare except under a strong light.

"Newspapers, generally speaking, have not advanced in the past twenty years as rapidly as have magazines. We believe that the superior quality of paper used by magazines is partially responsible for their growth. Due to this contention, along with the policy of the Inland Empire News to give its readers a consistently better product—the higher quality news print was contracted for."

The announcement was accompanied by statements from optometrists that the new blue white color of the paper would be easier on the eyes.

LE ROY TRANSFERRED

Mr. Robert LeRoy of the accounting department of the Grays Harbor Pulp & Paper Company was transferred in July to the company's Seattle office.

WEYERHAEUSER MEN PROUD FATHERS

The stork has been busy commuting between the Weyerhaeuser Pulp Division mills in Longview and Everett lately.

The first visit brought a girl, Patricia Anne, to Mr. and Mrs. Herbert T. Peterson of Longview on July 3rd. Mr. Peterson is with the Pulp Division in Longview.

The second trip was to Everett on July 28th when a son, William Carlton, was born to Mr. and Mrs. DeVane Hamilton. Mr. Hamilton is assistant technical director of the Weyerhaeuser Pulp Division at Everett.

Late News?

It seems that the editor of our Infant's Department was not on the job a year ago, so on the theory that it is better to be late than to miss the news entirely, we hereby record that Miss Virginia Alcorn, daughter of Mr. and Mrs. Gerald F. Alcorn, was one year old on August 5th. Mr. Alcorn is technical director of the Pulp Division of the Weyerhaeuser Timber Company at Everett.

EVERETT APPLIES FOR ADDITIONAL WATER RIGHTS

Mr. S. Frank Spencer, public works commissioner of the city of Everett, Washington, announced the latter part of July that the city will apply for additional water rights on the Sultan River.

The application, to be filed soon with the Washington State Department of Conservation and Development, asks a permit for taking 380 second feet from the Sultan River in place of the present permit allowing a total of 180 second feet.

Commissioner Spencer pointed out that

the city needed the additional rights in view of the possibility of further growth in pulp and paper manufacturing. Through recent expansion to take care of the new Weyerhaeuser pulp mill and the additional unit of the Soundview Pulp Company, now under construction, the city's pipelines, if taxed to capacity, would absorb the entire 180 second feet of the present permit, Commissioner Spencer pointed out.

JAPANESE RAYON PRODUCERS ATTEMPT STABILIZATION

Opposition in Canada and Australia and other foreign markets and fear that this may result in congestion of the domestic market has led the Japan Rayon Association to attempt stabilization of supply, according to advices received from Tokio by British Columbia pulp manufacturers.

Under a program approved by the association for its member manufacturers, new projects for mill expansion in Japan will be held up until the end of October. For one year, from November, increase of spindles is to be restricted on the basis of present capacity on a scale graduated from an increase of 75 per cent for mills having less than 4,000 spindles to an increase of five per cent for mills having more than 50,000 spindles.

New spindles going into operation from this month are to be subject to extra curtailment. New spindles going into operation in the larger mills after November are to be curtailed at a higher percentage.

The association will attempt to organize control of both prices and output, particularly in regard to export goods as it is felt that these have been cheaper than necessary, thus causing resentment and the possibility of tariff retaliation.

BRITAIN MAKES TRADE AGREEMENTS

Although more than 70 per cent of Great Britain's imports of newsprint are supplied by British countries and more than 99 per cent of that quota is furnished by Canada and Newfoundland, trade agreements have been negotiated by Britain with Norway, Sweden, Finland, Estonia and Latvia including provisions for duty-free entry into the United Kingdom of newsprint produced or manufactured in those countries, according to announcement made in the House of Commons by Right Hon. Walter Runciman, president of the Board of Trade.

BARCLAY OF POWELL RIVER

William Barclay, sales manager of Powell River Company, spent the last two weeks of July touring the Canadian prairie provinces, contacting publishers and studying the market.

One of the high points in this year's experience of William Barclay, sales manager of Powell River Company, was the Schmeling-Louis fight. Mr. Barclay was in New York on business and stayed over an extra day to see what promised to be "just another fight." He found that it was considerably more than that.

PRINCE RUPERT PROJECT

Frank L. Buckley, managing director of Canadian-American Pulp & Paper Company, planning construction of a pulp mill at Prince Rupert, is still in New York conferring with financiers and prospective customers.

BRITISH COLUMBIA PULP & PAPER CO.

Lawrence Killam, president of British Columbia Pulp & Paper Company, recently returned from the east, where he contacted business associates and looked into various aspects of the pulp situation, reports the market for bleached pulp fairly strong, with a gradual improvement apparent all along the line.

"This is the quiet time in the pulp market, and the fact that this is presidential election year in the United States makes it all the more so," said Mr. Killam. "Most of the big buyers place their heavier orders in May and June, and July and August are usually pretty dull. However, the prospects are satisfactory. There is no spot market for pulp just now, but the prospects are satisfactory."

Mild demand is reported from Japan, where B. C. Pulp and all other Canadian mills were shut out during the second half of 1935. A new agreement between Japan and Canada effected resumption of trade between the two countries at the beginning of this year.

"We are back in the Japanese market and hope to stay there," said Mr. Killam. "We may never regain the business we lost during six months of last year, but we are hitting the stride we used to have before the embargo, and that's something."

NEWS PRINT VOLUME UP

British Columbia newsprint executives, after studying returns on the year's business, report an advance of approximately 18 per cent over last year's.

"Apart from the general pickup in business in evidence everywhere, there has been an increased sale of newsprint directly attributable to the presidential campaign," said one company official. "A presidential year usually causes uncertainty in business, but with the newsprint industry the effect is usually beneficial because of the increased size of newspapers due to big issues run during the campaign."

"If there is only a 5 per cent increase over this year's volume of business next year the newsprint industry will be on a sound footing for the first time in several years. Newsprint men won't be obliged to assume an inferiority complex when talking to customers. It may not be actually a seller's market, but we will have a situation where publishers won't be in a position to dictate terms and threaten to place orders with semi-bankrupt mills if they don't get the prices they demand."

CROWN WILLAMETTE ADDS TUG

The Crown Willamette Company has recently taken delivery of the "Viola," an all welded steel tug designed for operation in shallow water. The "Viola" will be used largely at West Linn for towing barges and similar work.

The craft is 46 feet long and 14½ feet wide and weighs 25 tons with the 150-h.p. diesel engine installed. This is the second all-welded steel tug put in service by the Crown Willamette Paper Company during the last year, the first one being the "Constance J."

INCREASING BOX STORAGE

Longview Fibre Company, Longview, Wash., is operating to capacity, with a steady order file. An addition is being built to increase the box storage and to give more shipping space.

PARCHMENT PLANT BUSY

Pacific Vegetable Parchment Co. (California-Oregon Paper Mills), Los Angeles, Cal., is very busy, with a substantial volume of business on the books. The reciprocal trade agreement with Belgium forced the lowering in the price of vegetable parchment, but did not disturb the volume of business, as the United States manufacturers met the reduction in price put in effect by foreign producers.

THE MEEHAN B. C. PROJECT

Plans for a \$20,000,000 rayon mill near Vancouver, powered by a hydro development at Cheakamus Canyon, have been revived by the J. P. Meehan interests, and negotiations with the Vancouver city council have been renewed. About 1,000 men would be employed by the proposed mill.

The Meehans claim to have adequate financial backing and extensive timber limits which would supply the bulk of the mill's pulpwood requirements for a long period.

William Meehan, who has been negotiating with the council's utilities committee, says that his syndicate proposes to build the mill regardless of whether the city approves the use of the Cheakamus watershed. However, the Cheakamus site is preferable and he does not wish to proceed with an alternative proposition if Cheakamus is available.

The city of Vancouver does not own the Cheakamus watershed, which is the property of the provincial government and under its direct control, but there is an agreement between the government and the city giving Vancouver first claim to the use of the water, and for that reason the Meehans must obtain the city's consent before they can approach the government as they would otherwise do as a preliminary measure. The Meehans claim to have the tentative consent of the government already. They have been investigating two other sites, one of them being in the Campbell River district on Vancouver Island and the other near the Nimpkish River, also on the island.

The original plan was for the Meehans to take over the city's rights to Cheakamus and develop 50,000 horsepower, half of which would be utilized in the mill operations and the balance turned over to the city for use in a municipal power and light project.

Mr. Meehan now believes that the mill under consideration would require 50,000 horsepower and that the city should have a similar allotment if it undertakes to take over all the lighting in Vancouver. The latter project has been a stumbling block because the powerful British Columbia Electric Railway holds a franchise for provision of light, traction and power in most sections of Vancouver and probably would not be agreeable to surrendering its rights.

Alternatively, the Meehans suggest that the city could develop the Cheakamus and Garibaldi power possibilities and sell power to their company. Another plan would be for the company to finance both the city's part of the program and that of the proposed mill. Twin units would be developed, the city bringing in its own load.

The Meehans are still considering Squamish as the most desirable site for a mill. Squamish is at the southern terminus of the Pacific Great Eastern Railway, which taps a section of the company's pulp timber. It is also on tidewater.

Woodbre, site of one of the British Columbia Pulp & Paper Company's plants, is within a few miles of Squamish. Power would be carried down from Cheakamus by transmission lines to Squamish in the same manner as employed by Powell River Company in transporting power from Lois River by way of Stillwater to the mills.

Mr. Meehan says that it would require about two years to complete the sort of plant contemplated. Boring test holes for foundations would be the first job undertaken, and there would be extensive road construction, too.

Still another proposal which the Meehans plan to discuss with the city council later this month involves purchase by the city of the B. C. Electric's rights within the old city limits. The Meehans would supply the necessary capital and the city would meet the repayment of interest and principal from revenue. Mr. Meehan believes that by this plan the city would be able to pile up in the first three years some \$10,000,000 to \$15,000,000 before it needed to make payments on the scheme. The financial interests which he represents are still ready to go ahead with this plan, he says.

Members of the city council expressed themselves as anxious to settle the scheme one way or another during the next few weeks, as they do not wish to delay construction.

DR. LATHROP RETURNS

Dr. E. C. Lathrop, technical director of the Crown Willamette Paper Company, recently returned from a six weeks trip through the East. He says conditions look better and the outlook is for improved business.

VISITING ALASKA

Robert S. Wertheimer, resident manager, Longview Fibre Company, Longview, Washington, is taking a vacation trip to Alaska in his cruiser.

CANADA'S MINISTER TO JAPAN

Because British Columbia is so vitally affected by trade with Japan, especially in such products as lumber, pulp, paper, the Canadian government has appointed as its minister to Japan Hon. Robert Randolph Bruce, a British Columbian, who formerly was lieutenant-governor of the province.

ADDITIONS TO THE HELMERCO LINE OF DYESTUFFS

The Heller & Merz Division of the Calco Chemical Co., Inc., has announced the following new standards:

Helmerco Green BGC
Helmerco Green MYC
Helmerco Red 6GC

These types are the first of a series of additions to the Helmerco line, of which only the Helmerco Blues have previously been offered. They are of primary interest for the production of fast to light bond, wrappings, tissues, and in the preparation of a wide range of non-bleeding light shades of various finishes. They may also be used for paper coating and calendar stain work, particularly when fastness to light and non-bleeding are required.

Heller & Merz are represented among Pacific Coast paper mills by the Pacific Coast Supply Company. Mr. William Marshall is in charge of service work with headquarters in Portland, Oregon.

BOILER WATER TREATMENT IN THE PACIFIC NORTHWEST

By DR. KENNETH A. KOBE

With Discussion by W. L. GIBSON*

The demand for steam in the pulp industry is such that these plants have larger boiler installations than most other types of manufacture. Another difference is the small amount of condensate returned to the boilers, thus practically making the entire steam output from raw water. The pulp maker knows the importance of clean water for his pulp, and all modern mills have special treatment plants to insure clean water for the pulp. The fact that this water is clean and soft does not necessarily make it an ideal boiler water.

Surface water available in the parts of Washington and Oregon west of the Cascades is peculiar in the chemical composition of the solids dissolved in it. Generally, this water is formed from the melting snows in the Cascades, and comes rapidly coursing down over rocky river beds to empty into the sea. During the short time that the water is in contact with the soil, little opportunity is available for it to take up soluble salts. The river beds are granite and various feldspars, so that very little can be dissolved here. What is dissolved here, however, is extremely important, for the surface waters of this region are very high in dissolved silica, approximately four times as high in silica as the average for the

country. Calcium and magnesium compounds will be low; sodium and potassium will be high. Sulfates will be low and most of the alkali metal will be as bicarbonates. The water of the mountain streams will be thrown and tossed about so that it will be almost completely saturated with air, and a high content of dissolved oxygen may be expected.

Some representative analyses are given in Table I. These are typical analyses of some of our municipal water supplies.

The surface waters are thus characterized by:

- (1) Low total solids,
- (2) Low total hardness,
- (3) High silica,
- (4) Low sulfate,
- (5) High oxygen saturation.

Ground waters may be quite different in character as analysis ten shows for a particularly deep well water in King County. This is exceptionally high in dissolved solids, hardness, silica and sulfates. Softening treatment of this water would be expensive. A spring water at Seaside, Oregon, analysis twelve, shows a very high content of free carbon dioxide that makes the water acid; a pH of 6.8 was found. Such cases are the exception, but ground waters must be regarded with suspicion until an analysis is made.

These peculiarities of our surface waters cause two difficulties in the boiler: (1) scale formation, and (2) oxygen corrosion. The scale formed in the boilers is essentially a calcium silicate scale. Representative analyses are given in Table II.

Oxygen corrosion is noticed where the water temperature rises. Oxygen is forced

out of the water, collects on hot surfaces and corrosion results. These two effects of the use of untreated water must be overcome.

Prevention of Scale Formation

Hard scale forms due to the inverted solubility curve of the scale forming salt. The solubility of most salts increases with increasing temperature, but calcium sulfate and silica are just the opposite. They become less soluble as the temperature increases and crystallizes out on the boiler tubes as a hard adherent scale. The low sulfate concentration in surface waters generally insures that sulfate scale will not form, but the high silica content causes the deposition of a calcium silicate scale which is probably the best heat insulator of all the various types of scale.

The silica in the water is in two forms: (1) colloidal silica, (2) soluble silicates. The former is colloidal silica, or hydrated silicic acid, gathered from the disintegrating quartz minerals over which the water has passed. As this silicic acid slowly dissolves, it forms the soluble silicate ion in true solution. There is a great deal of difference in the behavior of these two forms towards removal treatment. The colloidal silica is removed quite readily by coagulants in pre-treatment, but the soluble silicates are little affected by this treatment.

Successful treatment of silica depends upon removing as much as possible before the water goes to the boiler, and thereafter keeping the silica in solution. Any coagulant in the raw water will assist in removing the colloidal silica. Sodium aluminate is undoubtedly the best material to use as a coagulant for it will

*Presented at the joint meeting of the Pacific Coast Division of the American Pulp & Paper Mill Superintendents' Association and the Pacific Section of TAPPI, Longview, Washington, June 5-6th, 1936.

Dr. Kobe is with the Department of Chemical Engineering, University of Washington, Seattle.

Mr. Gibson is associated with the Shibley Company, water treatment engineers, of Seattle.

TABLE I
Analyses of Waters of Western Washington and Oregon

Sample	Total Dissolved Solids	Silica SiO ₂	Iron Fe	Calcium Ca	Magnesium Mg	Sodium & Potassium Na & K	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Total Hardness as Ca CO ₃
1.	63	6	2	11	3.6	4.7	48	2.4	10	42
2.	32	2.9	0.2	4.5	1.4	4.0	19	3.9	3	17
3.	23	5.8	0.1	4.1	0.7	2.0	15	3.2	0.9	13
4.	52	18	0.2	5.1	25	5.0	30	1.6	5.2	23
5.	46	6.4	0.9	5.8	1.5	2.2	26	2.0	1.5	21
6.	39	14	0.1	5.0	1.2	3.3	21	3.2	1.6	17
7.	70	26	0.2	5.4	2.7	7.2	30	4.1	6.8	25
8.	52	16	0.1	5.0	2.3	5.8	32	2.7	4.0	22
9.	25	3.9	0.1	2.0	0.7	3.8	13	—	2.4	8
10.	256	56	0.0	52	10	8.2	208	3.6	13	171
11.	1983	291	32	240	117	42	126	965	22	1170
12.	56	17.1	2.5	3.5	1.4	5.6	23.7	2.9	free CO ₂	15.2

1. Aberdeen, municipal supply from Wynoochee River.
2. Bellingham, municipal supply from Lake Padden.
3. Everett, municipal supply from Sultan River.
4. Hoquiam, municipal supply from Little Hoquiam River.
5. Seattle, municipal supply from Cedar River and Lake.
6. Tacoma, municipal supply from Green River.
7. Astoria, municipal supply from Bear Creek.
8. Salem, infiltration galleries along Willamette River.
9. Portland, municipal supply from Bull Run River and Lake.
10. Longview, from well about 250 feet deep.
11. Bassett Well, in King County.
12. Seaside, Oregon, a spring water.

TABLE II
Analysis of Boiler Scales

	I	II	III	IV
SiO ₂	47.7	42.1	55.8	43.5
FeO ₂	10.5	3.24	8.3	3.1
Al ₂ O ₃	19.5	38.6	25.2	9.1
CaO	15.2	4.1	3.1	3.4
MgO	1.9	—	—	8.1
Na ₂ O	0.0	2.3	0.5	1.0
Ing. loss	4.6	4.9	9.3	7.4
Under'd	0.6	—	—	P ₂ O ₅ 6.4

I. Oregon State College central plant (1).

II. Railway locomotives on mountain rates (4).

III. Tube scale in cross drum boiler operating at 275 pounds pressure (5).

IV. Sodium aluminosilicate scale from the borrom tubes of a cross drum boiler operating at 400 pounds pressure (5).

also remove soluble silicates. The addition of sodium aluminate to a calcium-magnesium-silica containing water precipitates a calcium or magnesium aluminosilicate, thus removing two scale-forming constituents with one reagent (2). The removal of the calcium can prevent the formation of a calcium silicate scale. Treatment of the water with sodium phosphate will precipitate out the calcium before it can form scale. Removal of silica along with the calcium is also reported (3).

The addition of excess sodium aluminate and its usefulness in the boiler is a somewhat controversial question at present. The addition of sodium aluminate to the boiler feedwater has given improved results with high silica waters; practically all scale eliminated, all corrosion and pitting arrested (4). However, Hall (5) reports the analyses of sodium aluminosilicate scales formed in boilers when excess aluminate is used (See Analysis IV, Table II). Although calcium aluminosilicate will precipitate out in the boiler as a flocculent, non-adherent sludge, it is a base exchange substance and in the presence of a high sodium ion concentration will form the sodium aluminosilicate. This compound will form a hard scale.

Within the boiler, best practice appears to be to keep the silica in solution and reduce the calcium and magnesium. Silica may be kept in solution by high alkalinity (6), pH of 10.5 to 11.0 being used. This keeps the silicate as sodium silicate, and any aluminate will remain as sodium aluminate rather than causing the scale-forming sodium aluminosilicate to form.

Sodium phosphate is a desirable reagent for internal treatment because it removes calcium, gives alkalinity and does not decompose to give too high alkalinities at high pressures. Precipitation of the calcium as the phosphates and the magnesium as the hydroxide removes these soluble metal ions as sludges that are removed with the blow-down. Due to the high alkalinity in the boiler, it is necessary to control the sulfate-alkalinity ratio to prevent caustic imbrittlement. This is especially true because of the small amount of sulfate naturally occurring in the water.

Corrosion and Oxygen Removal

Many cases of boiler and preheater corrosion disappear when the alkalinity of the water is increased. This is due to the decreased solubility of the ferrous hydroxide initially formed (7). If oxygen is present, the ferrous hydroxide is oxidized to the ferric hydroxide and more iron can dissolve. Removal of oxygen from the feedwater is the best method of preventing this corrosion. Most of the oxygen can be removed in the preheater or deaerator due to the increased temperature of the water driving out the dissolved gases. This is never complete unless the feedwater is actually boiled so that some dissolved oxygen will remain in the water going to the boiler: the best method of removing this oxygen is by the use of sulfite (8). $2\text{Na}_2\text{SO}_3 + \text{O}_2 \rightarrow 2\text{Na}_2\text{SO}_4$.

This simple reaction takes place readily at boiler temperatures with the complete removal of all dissolved oxygen. The analytical method for very small amounts of dissolved oxygen in water is inaccurate; the best practice is to maintain an excess of from 20 to 50 ppm. of sodium sulfite in the water in boiler (9). This may be determined by simple titration of the excess sulfite. Idle boilers may be protected by filling with a sodium sulfite solution.

In gas analysis, pyrogallol is used to remove oxygen. This reaction is used for boiler water by using natural tannins as the oxygen absorbing agent. This type of reagent is recommended to obtain a number of results in boiler water treatment (10). The colloidal nature of tannins causes them to act as a protective colloid, to prevent the crystal growth of scale on the tubes; however, carbon dioxide and other unknown products result from the oxidation of tannins in the boiler, so their use should be under careful control.

Chemical Control of Boilers

The use of a boiler compound to prevent any and all ills of the boiler has no place in the boiler room of a pulp mill. Some of these compounds have a certain field of usefulness, but all must be applied under chemical control and with full knowledge of the constituents of the compound. For example: the Navy compound (11) consisting of anhydrous disodium phosphate, sodium carbonate, corn starch (47, 44 and 9 per cent respectively) has a very definite place in water treatment, and that is in the Navy, yet salesmen have come to the University to find out how and in what quantities

this should be applied to a boiler operating under conditions entirely different from those of Navy boilers.

The answer to the entire problem is careful chemical control in the laboratory of the pulp mill. The TAPPI Non-Fibrous Materials Committee has given in detail the approved methods for water analysis (12), unfortunately omitting alkalinity. Other outlines of water analysis are readily available (13). Practically all of the companies and laboratories selling materials or services to the boiler plant have booklets giving methods of analysis and how to interpret the analysis. The latter information sometimes needs careful scrutinizing, for the information often is in terms of the particular chemical being sold.

Hundreds of chemical analyses of pulp materials and products are being made each day in the laboratories, however, but few of them run systematic analyses on their boiler feed and blow-down. The chemical engineers and chemists are not specialists in boiler-water treatment, but they do know the fundamentals. If one of the laboratory men were assigned the boiler plant analysis treatment as a part of his regular job, better and more uniform operation would result.

The boiler is just as important as the digester, and careful chemical control of the boiler will pay just as well as control of the digester.

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DISCUSSION

By W. L. GIBSON

I would like to congratulate Dr. Kobe on his paper. It is an excellent summary of conditions and problems of the Northwest boiler plant, and I think the consideration of such problems in our universities provides a guide and check for operators obtainable, perhaps, in no other way.

The first point in this paper which might be mentioned is that of the high insulating value of the calcium silicate scales.

We had one case where a Zeolite water softener was installed to end internal boiler treatment. About two weeks after its installation we lost quite a few of our front row tubes. The failure was put down as due to a possible change of structure in the existing scale, and new tubes were installed. I believe it was about three weeks after the new tubes were put

in that we found practically all the front row tubes gone, including the new tubes, and some in the second row.

The scale formation was remarkably thin, perhaps between 1/64 and 1/32 of an inch in thickness and of the very hard calcium silicate type.

In a similar experience at Shelton, one or two tubes which had failed were examined by the boiler inspector who thought there must be some explanation other than scale as there was only about 1/1000 of an inch of scale on the tubes. Boiler ratings in both cases were about 175 per cent with no flame impingement although oil was being burned.

The reference in Dr. Kobe's paper to the formation of sodium aluminosilicate scales is also of interest as we have one or two cases in the Northwest and we have some data on others in other parts

of the country. This is one of the most difficult forms of scale to deal with. One new development indicates a possibility of a sodium iron silicate scale, the iron taking the place of all or part of the aluminum.

This problem is being attacked from the angle of removing the silica and both laboratory and field tests are under way at present. Results should be available in about two months.

Next, as to oxygen removal. So far as our experience goes, sodium sulphite is by far the most satisfactory final treatment. I notice the reference to the use of tannins and it reminded me of an unfortunate experience we had in using Quebracho extract as an internal treatment for silica scale. The steam carried about 180 degrees of superheat at 225 pounds pressure and was used in a large uniflow engine.

Tests had shown that in spite of the high superheat there was an appreciable carry over in the steam although we had quite a modern set up for steam separation. The piston rings failed in this engine shortly after starting the use of the tannin and a new set was installed. They lasted just six hours. The explanation seemed to be that there was an increase in carry over due to the tannins plus a specific effect of the tannin content in the carry over on the lubrication of the cylinder walls.

I hope that the reference in Dr. Kobe's paper to "boiler compounds" will be noted. If the truth were known as to the amount of money being paid for soda ash, starch and water it would be a revelation.

MAY NEWS PRINT STATISTICS

Production in Canada during May, 1936, amounted to 267,067 tons and shipments of 286,445 tons, according to the News Print Service Bureau. Production in the United States was 75,719 tons and shipments 77,062 tons, making a total United States and Canadian news print production of 342,786 tons and shipments of 363,507 tons. During May, 26,915 tons of news print were made in Newfoundland, so that the total North American production for the month amounted to 369,701 tons. Total production in May, 1935, was 357,507 tons.

The Canadian mills produced 164,959 tons more in the first five months of 1936 than in the first five months of 1935, which was an increase of fifteen and seven tenths percent. The output in the United States was 2,664 tons or seven tenths of one percent less than for the first five months of 1935, in Newfoundland 10,421 tons or seven and six tenths percent less, and in Mexico 7,982 tons less, making a net increase of 143,892 tons, or nine and one tenth percent.

Stocks of news print paper at Canadian mills were reported at 66,240 tons at the end of May and at United States mills 15,906 tons, making a combined total of 82,146 tons compared with 102,867 tons on April 30, 1936.

JUNE NEWSPRINT STATISTICS

Production in Canada during June, 1936, amounted to 270,051 tons and shipments to 262,959 tons, according to the News Print Service Bureau. Production in the United States was 79,830 tons and shipments 74,710 tons, making a total United States and Canadian news print production of 349,881 tons and shipments of 337,669 tons. During June 27,980 tons of news print were made in

Newfoundland, so that the total North American production for the month amounted to 377,861 tons. Total production in June, 1935, was 338,272 tons.

The Canadian mills produced 202,990 tons more in the first six months of 1936 than in the first six months of 1935, which was an increase of fifteen and eight tenths per cent. The output in the United States was practically the same as for the first six months of 1935, in Newfoundland production was 10,000 tons or six and one-tenth per cent less, and in Mexico 9,665 tons less than in 1935, making a net increase of 183,481 tons, or nine and six-tenths per cent.

Stocks of news print paper at Canadian mills were reported at 73,199 tons at the end of June and at United States mills 21,027 tons, making a combined total of 94,226 tons compared with 82,014 tons on May 31, 1936.

TYPE MAP OF NORTHWESTERN WASHINGTON PUBLISHED

Lithographed maps of the northwestern quarter of Washington, on a scale of 1/4 inch to the mile, portraying in colors the 25 principal cover types, are now available for distribution at the Pacific Northwest Forest Experiment Station. This is the third of a series of eight maps which will show the character of the forest cover throughout Washington and Oregon. The two maps previously released covered the western half of Oregon and were very well received. The maps will be extremely useful to pulp mill executives, planning boards, state and county officials, lumbermen, foresters, fire wardens, and to others interested in obtaining a comprehensive knowledge of the forest resources.

These lithographs can be obtained at the Pacific Northwest Forest Experiment Station, 423 U. S. Court House, Portland, Oregon, for \$1.00 per copy. An additional charge of 10 cents will be made for mail orders of five copies or less, and 20 cents for greater quantities. Remittance should be made by check or money order, payable to the Regional Fiscal Agent.

BARKER CATCHES HIS FISH

Mr. Walter L. Barker of Nashua, New Hampshire, president of the Improved Paper Machinery Corporation, spent the first ten days of August on the Pacific Coast.

It has long been his ambition to catch a large salmon, so while here Mr. Barker went on his first Coast fishing trip and came back triumphantly with a 24-pound salmon. The unlucky salmon is now being stuffed for posterity to look upon and when properly prepared for his public debut he will gaze down from the wall of Mr. Barker's office in Nashua. Beneath will be a sign informing the visitor that the big fellow came from Mission Beach on Puget Sound.

Mr. Kenneth B. Hall of Portland, Oregon, is Pacific Coast representative for the Improved Paper Machinery Corporation.

MAX ZIMMERMAN VISITS COAST

Max Zimmerman, of the United Paperboard Company, Lockport, N. Y., accompanied by his wife, recently motored to the Pacific Coast and spent some time with their son, Arthur Zimmerman, manager of the Pacific Straw Paper & Board Co., Longview, Washington.

JOHN FERNSTROM VISITS POMONA

John Fernstrom, youngest brother of F. O. and Eric Fernstrom, arrived at Pomona, Calif., the middle of July for a two months stay at the California Fruit Wrapping Mills. Mr. Fernstrom is managing director of Fernstrom & Co. at Stockholm, Sweden, where Eric Fernstrom is now making his home. He is studying mill operations while here and will investigate conditions in the industry on the Pacific Coast.

CELLOPHANE A GENERIC TERM

According to a recent decision of the U. S. Court of Appeals, any manufacturer of cellulose may now use the name "cellophane," in combination with the possessive name, such as "Du Pont cellophane," "Pacific cellophane," etc. The court held that through general usage the name had become a generic term and is public property.

DILLING MANAGES WESTERN WAXED

Mr. Cecil Dilling, for a number of years salesman for the Western Waxed Paper Company's Portland, Oregon, plant, has recently been appointed manager to succeed the late Mr. Edward E. C. Bogren who passed away May 11th.

TAYLOR VISITS COAST

Mr. F. C. Taylor, representative for the Rainier Pulp & Paper Company in Japan, made his annual visit to Shelton, Grays Harbor and Port Angeles early in July.

HAMMERMILL OFFICIALS VISIT

Three Hammermill Paper Co. officials were in San Francisco from Erie, Pa., in July. They were Norman Wilson, vice-president and general manager; W. F. Bromley, vice-president and secretary, and W. T. Brust, a director.

MACKENZIE

R. C. Mackenzie, of the Powell River Company's head office, Vancouver, went to Kamloops, B. C., early in July to recover from an attack of pneumonia.

BRAZIL'S IMPORTS OF TRANSPARENT SHEETING FROM JAPAN INCREASING

Japan is becoming of increasing importance as a supplier of Brazilian requirements in the line of transparent cellulose sheeting, according to a recent report from Trade Commissioner J. Winsor Ives, Rio de Janeiro. Figures covering imports of this product are not available prior to 1934. In that year Brazil imported a total of 139,380 kilos (kilo = 2.2046 lbs.), of which the United States supplied 71,338 kilos, Germany, 22,603 kilos, France, 16,669 kilos and Japan only 230 kilos. Imports last year were slightly higher—140,884 kilos—but of this amount the United States supplied 59,411 kilos, while Japan to second place with 40,779 kilos. Imports from France increased to 29,240 kilos and from Germany dropped to 11,192 kilos.

The ability of Japanese manufacturers to offer paper at a price 20 to 25 per cent under American quotations has been largely responsible for the headway their product has made in the market.

CHEMICALS for PULP and PAPER

American Potash & Chemical Corporation Extracts Important
Chemicals From a Natural Deposit at Trona, California

By D. B. SCOTT*

A dry lake in eastern California, south-westward from Death Valley about 40 miles, furnishes the raw materials for one of the great chemical industries of the Pacific Coast. Conversion of these remarkable deposits of potash, borax and soda salts into commercial products that are internationally known, is undertaken in the plant of the American Potash and Chemical Corporation, located at Trona on Searles Lake.

The natural deposits occur in a solid crystal aggregate in this lake, but they are extracted by pumping and not by mining, as the valuable salts occur in a dense brine which fills this porous salt deposit. The separation from this highly mineralized brine of muriate of potash, borax, sodium carbonate and sodium sulphate, involves an application of physical-chemical methods which are not duplicated elsewhere. It is worth noting that the successful working out of these methods has provided economic independence of the Pacific Coast in these basic chemicals. For many years following 1918 the American Potash and Chemical Corporation supplied nearly all of the potash used in the United States, which did not come from foreign countries.

Trona is the name of the company town and "Trona" is the brand name applied to the potash, soda ash and salt cake produced here. The name "Trona" is taken from the natural deposits of sodium-carb-bicarbonate which occur on the surface of this lake, and the early day California Trona Company was formed in 1908, largely to develop the soda ash possibilities of these Trona deposits.

*In charge of Western Sales Division of American Potash & Chemical Corporation, Los Angeles, Calif.

The word "Trona" is of Egyptian origin and, we believe, was applied to the soda deposits near the Nile, which the people of antiquity used in the earliest known glass-making efforts.

In 1862 John W. Searles visited and observed this lake and having identified some of the dried shore salts as borax, decided to go into the borax business. The San Bernardino Borax and Mining Company was his, and mule teams hauled the crude material 150 miles over the Mojave Desert from about 1880 to 1895. Potash was first reported in Searles lake brine about 1912 and was followed by the building of a pilot plant in 1914, which did not prove successful. Further research work developed a method which resulted in building the first unit of the present plant, which began shipping potash in October of 1916.

The World War focused all activity on potash recovery, and not until 1919 was actual commercial production of borax started. In 1934 an entirely new process for the recovery of sodium carbonate and sodium sulphate was put into practice to produce soda ash and salt cake.

It was not until 1934 that Searles Lake fulfilled a destiny which had been clearly marked for 60 years. First a premier source of borax, it became a possibility for soda ash, as this village name testifies; it then became the primary American producer of potash, reverted again to its borax development and finally has just recently yielded to sodium salts which 25 years ago seemed to be its primary resource. All of these developments have been brought to completion by the present company and in every case the operators have not been satisfied with

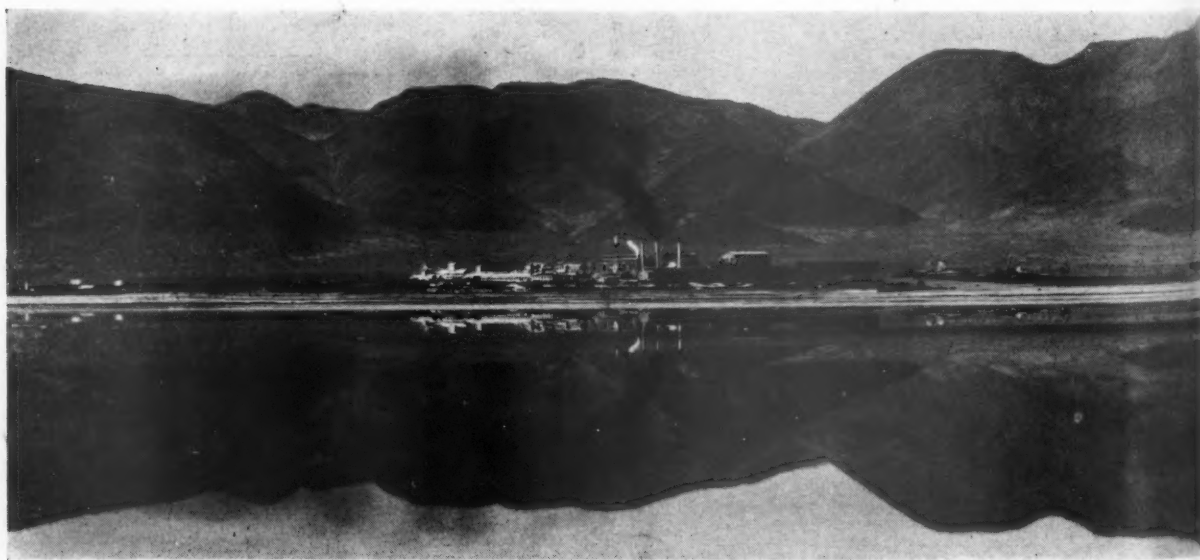
"crude" products. Every product made today at Trona is a refined salt.

The products from Searles Lake are from "natural" sources. They are basic raw materials for most of the important industries and they are backed by an immense reserve of natural resources.

Where do these deposits come from and why are they here? A tremendous run-off from the melting Sierran glaciers and abundant rains 30,000 years ago moved down the Owens Valley, and this stream eroded areas which exposed particularly high soda and potash-bearing rocks. The disappearance of the ice field and a change to low rainfall caused this river to dry up into a series of pools, the largest pool in surface being Owens Lake, and the smallest, Searles Lake.

The great evaporation rate of the desert country dried up these lakes and Searles Lake happened to occupy a particularly deep valley and was the end of this chain of lakes for a long time. The present deposits are, of course, in the deepest part of this valley. Even with the low annual rainfall this lake is constantly fed with sub-surface springs and one inch of rainfall on the surface of the dry lake itself—not counting the surrounding basin—will add water equal to 100 days of the present rate of brine pumping.

The Trona process for recovery of commercial products is briefly, a concentration of the lake brine, cooling of the concentrated liquor and re-treatment of the salts recovered during evaporation. From numerous wells in the bed of Searles Lake the brine is pumped through a three and a half-mile pipe line to storage tanks near the plant. The wells are about 70 feet deep. The brine is a satur-



TRONA VILLAGE AND PLANT FROM THE LAKE

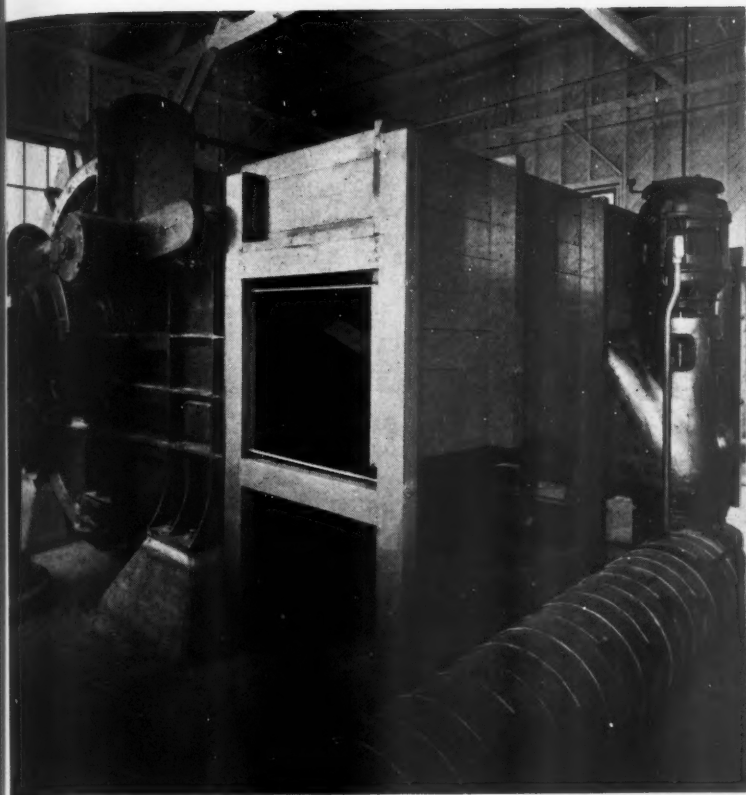
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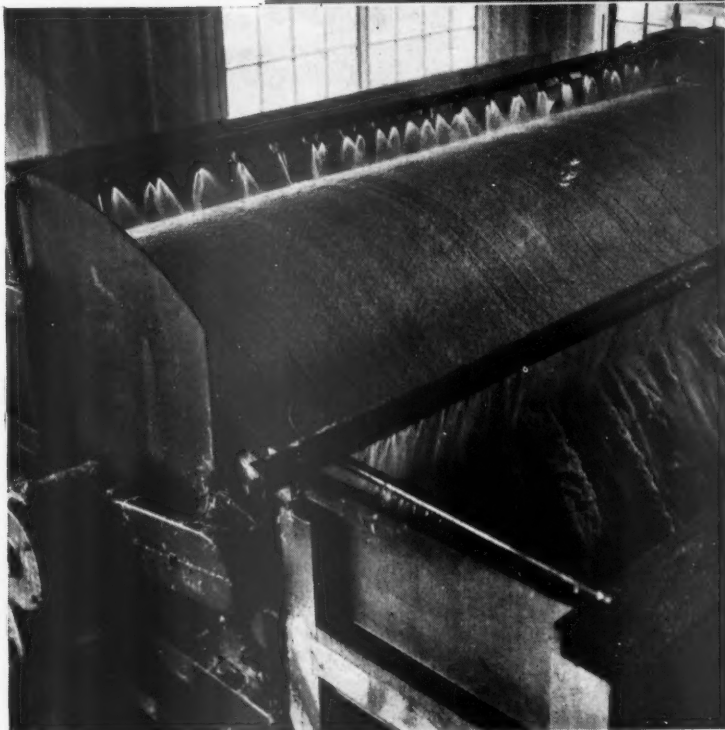


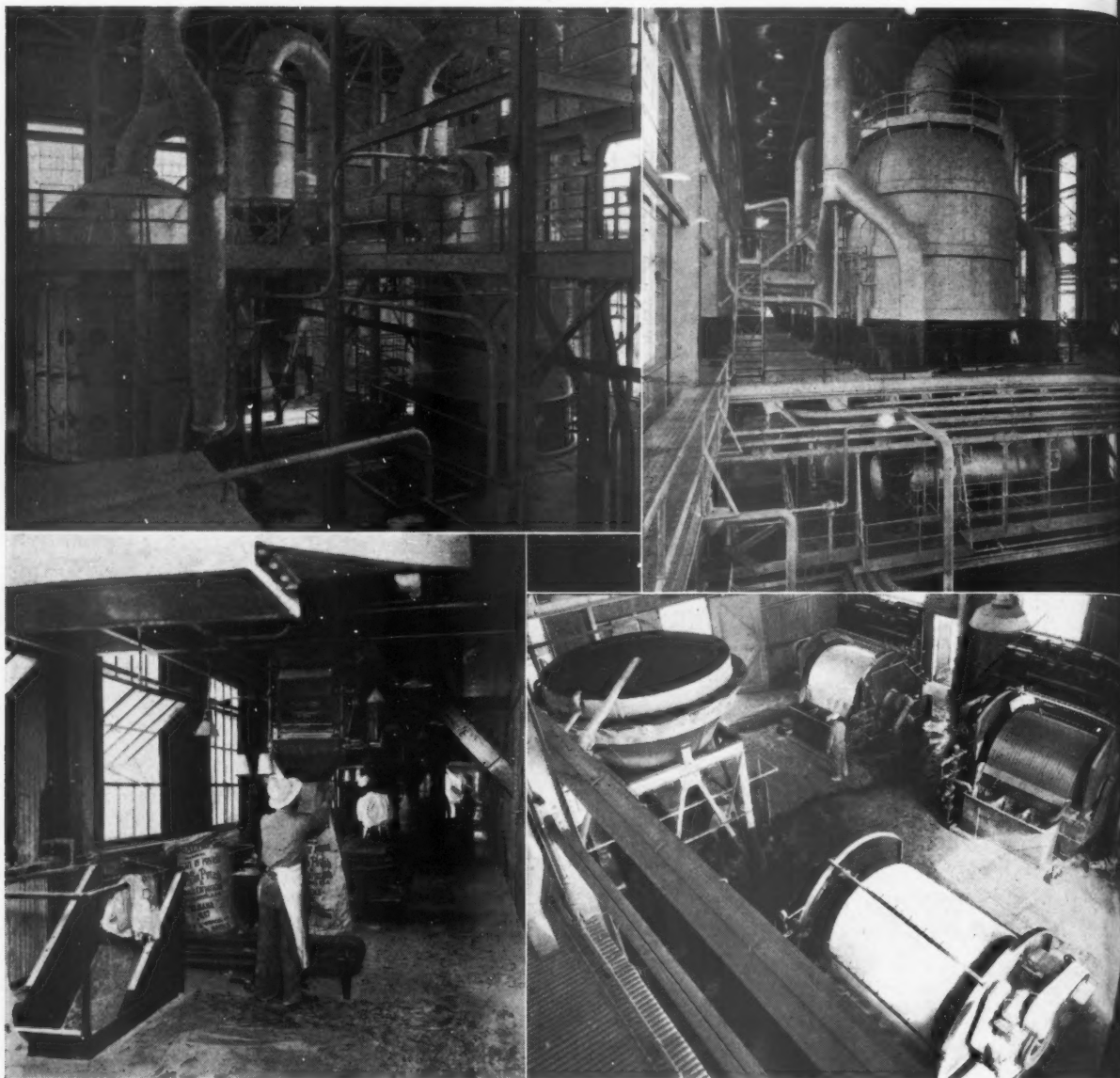
IMPROVED

PAPER MACHINERY

CORPORATION

Nashua, New Hampshire





THE TRONA PLANT HAS THE LATEST IN EQUIPMENT

At the upper left the carbonate evaporators. Upper right, evaporator unit No. 3. Lower left bagging agricultural potash, and, lower right, the Burkeite sal soda filter.

ated solution of salts, and its composition may be indicated in general figures as follows (per cent by weight):

Sodium Chloride	16.25%
Sodium Sulphate	6.90%
Potassium Chloride	4.70%
Sodium Carbonate	4.75%
Sodium Tetraborate	2.80%

The total salts are, therefore, 35.50% of the brine.

In addition to these salts there are minute quantities of bromides, phosphates, arsenates and lithium salts. The temperature of this brine remains nearly constant throughout the year. The present combined capacity of the Trona plant of refined salts, such as potash, borax and soda products, is close to 1,000 tons per day.

Concentration Process

Brine is fed to triple effect evaporators 22 feet in diameter and concentrated un-

der very careful control until a near-saturation point in potassium chloride is reached. At the same time a large part of all the other salts in the brine, excepting borax, are crystallized out and removed from the system. These salts consist chiefly of salt, sodium carbonate and sodium sulphate. The sodium carbonate-sulphate salts are removed to furnish the raw material for the soda products plant. The concentrated potash liquor then goes to the potash plant storage.

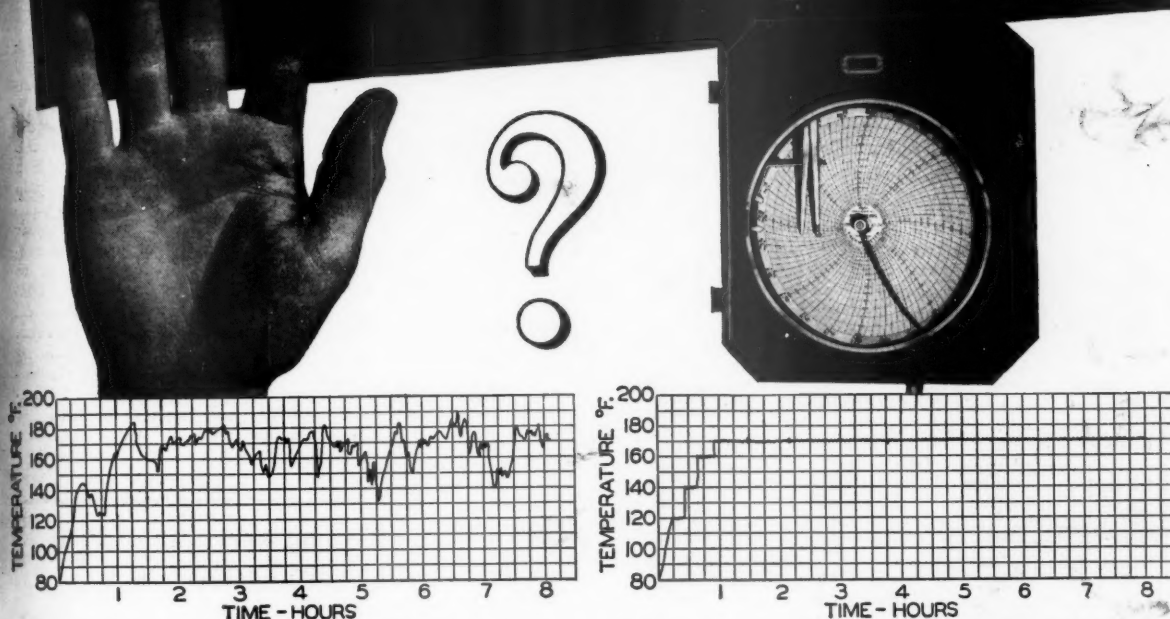
Potash Process

Cooling of the potash liquor is accomplished in a two-stage vacuum crystallizer. From cone tank settlers the crystallized muriate of potash is drawn to centrifugals, washed and partially dried. From the centrifugals the potash goes to rotary driers for complete drying. It is taken from the driers and distributed by

belt conveyors in the large storage buildings. This product then is ready for shipment with an average analysis of 97% potassium chloride. This is muriate used for fertilizers, and when required for shipment is reclaimed by a power shovel and conveyed either to bulk-carloaders or to bagging machines. Shipments are sampled by highly accurate sampling devices and no car is released unless the analysis confirms with a rigid specification manual. The loading facilities at the potash plant can handle over 160 tons per hour.

A recent development in the Potash Process is the manufacture of "Chemical Grade" Potash. This is produced by refining the agricultural grade product, the refining being very carefully controlled in order to insure minimum impurities. The finished product runs well over 99% potassium chloride.

HAND *or* AUTOMATIC CONTROL of Grinding Temperatures



With Hand Control—Note 50–60° F. changes in grinding temperatures and the rapid fluctuations. You translate them into effect on quality and conversion costs.

With Taylor Automatic Control—Grinding temperature is held within an average of plus or minus 1° F. It is easy also to bring stone temperature up gradually after a shutdown.

**Read the charts for a conclusive answer—
and use Taylor Automatic Control**

NOTE on one chart the wide fluctuations in grinding temperatures—50–60° F. in a short time. This is a record of hand control. What will be the effect on stock quality—on freeness, color, tensile strength? Certainly there will not be a uniform quality.

Just as important to you is the bad effect of such hand control on your production, your power consumption, the life of your stones.

You see the reverse of this chart picture in the uniform, even, automatic control of grinding temperature by a Taylor System.

Production increases as temperature increases. Taylor Control maintains the grinding temperature within such narrow limits that you can operate close to critical temperatures of both stock and

stone. Maximum production is always possible without danger to stock quality or to stone.

Your power consumption decreases as temperature increases. Again, the ability of Taylor Control to maintain safely a higher grinding temperature produces substantial power savings. Taylor Control has shown that it can reduce power consumption 6% per ton on pocket type grinders. Comparable savings are made on other types.

Stone wear decreases with uniform temperature control. Sudden fluctuations cause shelling and blistering. Taylor Control reduces reburrings . . . brings stone temperatures up gradually to prevent fracturing.

Many mills in the United States and Canada have experienced the savings

and improved product quality from using a Taylor System of Grinder Temperature Control. This system is a development of the first practical method of measuring grinder temperatures worked out by Taylor Engineers several years ago. Learn how Taylor Automatic Control today can greatly increase operating efficiency. Write for Special Bulletin 98108 on Taylor Systems for Pocket, Semi-magazine and Full Magazine Type Grinders. Taylor Instrument Companies, Rochester, N. Y., or Toronto, Canada, Manufacturers in Great Britain—Short & Mason, Ltd., London, England.

Taylor

Indicating Recording • Controlling

**TEMPERATURE, PRESSURE and
FLOW INSTRUMENTS**

Borax Process

The liquor remaining after crystallized potash has been removed is sent to the Borax Plant. After cooling under vacuum the liquor is agitated and a crystallized crude borax is separated from the end liquor on a series of vacuum filters. This crude borax is then re-dissolved and the solution carefully cooled to re-crystallize a pure product. After passing through centrifugals this refined borax is dried in steam heated air. The dry borax is then exposed to magnetic separation to remove all traces of iron, and is screened on vibrating screens to various sizes: coarse granular, fine granular and powdered. These constitute the borax of commerce, a sodium tetraborate with ten molecules of water of crystallization. Borax from this plant runs 99.7% in purity and is marketed under the name, "Three Elephant Borax." A part of the borax is dried to produce an anhydrous borax, known as "Pyroborate."

Boric Acid

Boric acid in both technical and U. S. P. grades, is made in this plant. The refined borax is treated with sulphuric acid, and the technical grade of boric acid crystals produced. These in turn are re-dissolved and again crystallized in a plant where utmost cleanliness is observed, and the U. S. P. boric acid is produced. Every ton is sampled to insure high quality, and the product is packed in barrels or bags.

Soda Ash and Salt Cake Process

The carbonate and sulphate salts of soda which were withdrawn from the first concentration of brine, are filtered and are leached to remove sodium chloride and the remaining chemical-mechanical mixture of carbonate and sulphate is recovered. This salt is leached and filtered and separated into individual carbonate and sulphate components. Each salt is then subjected to cooling and re-crystallizing to obtain maximum purity. The final products, sodium carbonate and sodium sulphate, are calcined to produce three well-known basic chemicals, soda ash, salt cake and desiccated sodium sulphate.

Soda Ash is produced by this process at the highest known purity. The product analyzes from 99.60 to 99.75% in sodium carbonate. It is produced in both granular and powdered form, and the present plant capacity provides for 100 tons per day of output.

Salt cake is a name applied to an impure sodium sulphate, but the Trona Salt Cake is of exceptional purity. The desiccated sodium sulphate is a product derived, in this plant, from refining of the salt cake so that the analysis is 99.60% sodium sulphate with exceedingly low iron impurities. Trona Salt Cake has assured the Pacific Coast of independence from imported sources of Salt Cake, and this plant is now by far the largest producer of natural sodium sulphate in this country.

The Soda Products Plant, based on entirely new and original processes for recovery of soda ash and salt cake, was completed in July, 1934, and the products from this plant have already been widely distributed in domestic and foreign markets.

The Community

The plant location, as well as the industrial village, is known as Trona. In

addition, therefore to operating a highly specialized plant, the Company maintains a sizeable village, a water system requiring over 2,000,000 gallons per day, a community store and service center, restaurant and mess hall facilities, a well-equipped hospital, a theatre, and abundant recreational and athletic equipment. A community newspaper "Trona Pot-Ash" is issued weekly. From 800 to 1000 men are required for the Trona operations, and the total community population varies up to 2000 individuals.

The company operates its own 31-mile railway connecting with the Southern Pacific Railroad at Searles Station. During recent months of peak shipments this railway has moved more than 30,000 tons of Trona products in a single month.

Trona provides the complete desert community. Its climate is not unlike many parts of Arizona, California and Nevada, and from October to May it is delightful. The high Sierra resorts and the Death Valley trails are not distant, and a well-paved highway places the Southern California cities four hours distant from this community.

BILL DONALDSON VISITS COAST PULP MILLS

Mr. William H. Donaldson, sales manager of the pulp department of the Perkins-Goodwin Company, paper and pulp brokers of New York City, was a Pacific Coast visitor for several weeks the latter part of June and early in July.

Mr. Donaldson has been coming to the Pacific Coast regularly for a number of years and has closely followed the development of the pulp industry. After inspecting a number of Coast pulp mills, Mr. Donaldson stated that, "In my opinion the West Coast mills, especially pulp mills, have made tremendous advances in every way since my last visit to the Coast. They are surely an asset to the American industry. When it comes to quality, control and methods of manufacturing pulp I cannot see how anyone would have much of a chance to make any suggestions as to improvement in any way."

COLLECTION OF FUNDS FOR ITALY'S NATIONAL CELLULOSE AND PAPER BOARD

The Act of June 13, 1935, constituting the National Cellulose and Paper Board (Ente Nazionale per la Cellulosa e per la Carta), mentioned in "Side Runs of the Paper Trade" No. 570 (September 10, 1935) provided for the financing of the board by obligatory contributions from the rayon, chemical pulp, and paper industries as follows:

An annual contribution of 1,500,000 lire from domestic producers of rayon and other artificial fibers.

A charge of 5 lire per quintal on all chemical pulp imported into or manufactured in Italy for uses other than the production of artificial fibres.

A charge up to 10 lire per quintal on all packing and wrapping paper imported into or manufactured in Italy.

The regulations for collecting the above funds are contained in a Ministerial Decree of January 23, 1936. In the first instance the money will be collected by the Federation of Manufacturers of Artificial Fibres, which will tax its members up to the required sum on the basis of each firm's total annual assessment for the syndical organizations as shown by the records of the Provincial Unions. The members firms are required to remit the contributions to the Federation within one month from receipt of advice to do so. If remittance is not made within 30 days, the sum due will be collected by the local tax collectors. Firms may appeal to the Ministry of Corporations against the amount of the contribution allotted to them if they consider it excessive.

The charge of 5 lire per quintal (quintal = 220.46 lbs.) on imported chemical pulp for other uses than the manufacture of rayon will be collected by the Customs officials. In order to claim exemption from the payment of this charge, the importer must present a signed statement that the chemical pulp imported is to be used for the production of artificial fibers and no other use. Chemical pulp importers obtaining such exemptions are required to make a bi-monthly statement to the Federation of Manufacturers of Artificial Fibres showing their imports of chemical pulp for the artificial fibers industry brought in without payment of the cellulose tax. Domestic producers of chemical pulp are also required to keep records showing the amounts of chemical pulp used directly by the producers.

SPEED With Accuracy---

is essential to any industry that seeks to increase production and reduce waste and spoilage.

Low levels of lighting handicap the plant worker in speed, accuracy and comfort.

Let us help you analyze your lighting requirements.

Puget Sound Power & Light Company

"To Best Serve the Public Interest"

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of those who sell paper in the western states

+ + + +

DUNN PASSES AWAY

H. Arthur Dunn, secretary of the Pacific States Paper Trade Association, died in San Francisco July 31. The funeral was held at San Mateo Aug. 5, and was attended by many of his friends in the paper trade.

The death of Mr. Dunn was a real blow to the industry, which he had served for many years, and all paper men were grieved to hear of his passing.

EDWARD SMITH OPENS FINE PAPER DEPARTMENT

Edward N. Smith, prominent paper mill representative of Los Angeles and San Francisco, who represents the Rhineland Paper Co., West Carrollton Parchment Co., The Tuttle Press Co. and the Crystal Tissue Co., announced on Aug. 1 the opening of a fine paper department.

This represents an important expansion of Mr. Smith's organization, and is of considerable interest to members of the trade all over the Pacific Coast.

With Mr. Smith will be associated Irvin Spivak, who for the past 16 years has been purchasing agent for the Zellerbach Paper Co.

Names of the specific fine paper mills whose lines will be carried have not yet been released, but it is understood they are of the same high type as those already selling through the Edward N. Smith organization.

CLUB PLANS HI JINKS

Tentative plans formed by members of the Paper Mills Men's Club in Los Angeles for the second annual Hi Jinks, given by millmen for local paper jobbers, call for staging of the big event on Sept. 25 at the Riviera Country Club, near Santa Monica.

Present indications are that there will be the usual golf tournament in the afternoon, followed by dinner, with six acts of vaudeville and other entertainment. A Calcutta pool will be staged, there will be fine golf prizes and numerous handy door prizes.

George Wieman is chairman of the committee handling the affair. Edward N. Smith is arranging the show and entertainment, Frank Philbrook will have charge of the golf tournament, golf prizes and door prizes. Neil B. Sinclair is attending to the printing of the program, tickets, etc., while G. Dewey is being trusted with the finances.

This year invitations will be extended to mill men in San Francisco who are not represented in Los Angeles but who do business here, and it is hoped that a number of them will be on hand to take part in the Hi Jinks.

B., M. & T. REMODELING L. A. OFFICE

The administrative and sales offices of Blake, Moffitt & Towne, in Los Angeles, are being moved into new quarters that bring this end of the business to the same high plane of modern efficiency that has characterized the warehouse operations in the past.

The first floor of the building has been completely remodeled and modernized, and the latest features in air conditioning, artificial lighting, and acoustic control have been installed.

SIMPSON EAST

R. L. Simpson, assistant sales manager of the printing paper department of Blake, Moffitt & Towne, had been away from Los Angeles on a three week's eastern trip to his old stamping ground at Louisville, Ky., where he formerly was in the paper business.

JCM VACATIONS

Russell Attridge, sales manager for Johnson, Carvell, Murphy, returned to his Los Angeles office the first of August after spending two weeks fishing in the High Sierras. He went to the Golden Trout Camp, had good luck with rod and reel, so came home happy.

Jerry Madigan of the same company went to Lake Tahoe the first of August, and was followed a week later by Al Hentschel. Harold Melville was another recent vacationer, and spent his time "touring California."

BROUSE RECUPERATING

Charles Brouse of the Pacific Waxed Paper Co., Los Angeles, left his desk at the end of July to spend several weeks in the hospital. He is expected back some time in August, as soon as he has recovered from his operation.

PHILO HOLLAND

Philo K. Holland, assistant manager for the Zellerbach Paper Co., Los Angeles, was due back at his office Aug. 10, after two weeks at Turner's Lodge in Northern California. He packed back into the mountains to do a bit of fishing.

F. O. BUTLER IN LOS ANGELES

F. O. Butler, who with his brother founded the Butler Paper Co. in Chicago many years ago, is spending a good deal of his time now in Los Angeles, where their branch, the Sierra Paper Co., is located. Mr. Butler is now retired from active work in the company.

Paul Butler, company executive, is still on the Coast, being at Santa Barbara at present.

CROWN-ZELLERBACH BUYS MIDLAND PAPER COMPANY

The Crown-Zellerbach Corporation recently announced the purchase of the Midland Paper Company of Chicago, and took possession August 1st. The Midland Paper Company does a general paper merchant business at its location, 625 West Randolph Street, and is a member of the National Paper Trade Association.

WILHELMI SAYS BUSINESS BETTER

In a talk before the Tacoma Kiwanis Club, Mr. Frank A. Wilhelmi, vice-president of the Standard Paper Company of that city, recently stated that business was up from 30 to 35 per cent above the low point of the depression and that all wholesalers are feeling better as conditions improve.

OHM BACK IN PAPER GAME

William (Bill) Ohm has rejoined the General Paper Co. staff in San Francisco after trying out the automobile business. He is handling promotional work.

GENERAL LAUNCHES AD CAMPAIGN

General Paper Co., San Francisco, has launched its first advertising campaign, taking display space in "Pacific Printer" and following this with direct mail and personal sales work. Harry D. Bean, general manager, has worked the copy out along the line of a challenge by General on various features of its papers. The first full page in the magazine had for a top line "We Challenge Competition" and the text listed the house's six most important lines. The second display copy led off with "We Challenge With Quality."

GREAT FALLS PAPER COMPANY DOING BUSINESS

The Great Falls Paper Company of Great Falls, Montana, suffered a complete loss of its stock in a fire which razed its building July 3rd, but was ready to do business in a new location the morning of July 6th. All records were saved.

Orders for new stock were placed with paper mills by telephone and shipments were rushed by air express and express. Five carloads of high grade papers were moved almost immediately from Eastern paper mills, headed for Great Falls.

Competitors in Great Falls offered Mr. James J. Flaherty, president of the company, access to their stocks until his new stock arrived. Frank E. Flaherty is treasurer and Louis E. Flaherty is secretary of the Great Falls Paper Company.

INROADS INTO TRADING MARGINS

By W. M. LEVY*

In accordance with trade custom, practically all vendors deduct the freight from their invoices before figuring the cash discount. This practice is based upon the fact that nearly all Fine and Wrapping papers are bought f.o.b. mill less freight allowance.

However, on the other hand, when paper jobbers sell this same merchandise, they usually quote f.o.b. customer's sidewalk, thereby suffering a loss in the trading margin by giving discount on the selling price which includes the freight, whereas the manufacturer gives discount on the net amount of the bill, which is less freight allowance.

Below is an illustration:

Selling Price	
30,348 lbs. at \$6.25 (f.o.b. sidewalk)	\$1,896.75
Cash Discount	37.93
	<hr/>
	\$1,858.82
Cost	
30,348 lbs. at \$6.25	\$1,896.75
Trade Discount 5%	94.84
	<hr/>
	\$1,801.91
Less Freight (32,080 lbs. at 32 1/4c)	103.46
	<hr/>
	1,698.45
Cash Discount	50.95
	<hr/>
	1,647.50
Freight Paid	103.46
	<hr/>
	\$1,750.96

Loss in Trading Margin on account of taking discount off gross amount of invoice instead of after freight is deducted (2% of \$103.46)—\$2.07.

The method which the mills have adopted for the figuring of cash discounts is very widely accepted as the proper method of arriving at a net amount due from a paper jobber, so that we, particularly when selling in carload lots, or on contracts, could logically follow the manufacturers' procedure and also sell to our buyers on the same terms. We would, therefore, increase our trading margin by the cash discount on the amount of freight paid.

Much of the business handled by paper jobbers is on a commission basis, and if the manufacturer had sold the customer direct, the terms of sale would have been the same as to a paper jobber with his commission omitted. It naturally follows that we should earn our commissions in their entirety and without any losses due to differences in the manner of applying cash discounts.

Therefore, it is my suggestion that a united effort be made either to sell on the same terms as we buy, or add to our cost a sufficient coverage to take care of vendors' practice of discounting the freight allowance.

*Presented at the meeting of the Pacific States Paper Trade Association, Del Monte, California, May 14th-16th, 1936. Read by the secretary.

SAMPLING

By VICTOR E. HECHT*

Under the chairmanship of J. H. Brewer, of Boston, The National Paper Trade Association's new Printing Paper Merchandising Committee is now functioning. Its purpose is to develop ideas, ways and means, whereby the sale of printing papers may be increased through advertising coordination, sampling, sales development, inventory study, surveys of potential markets, and a study of old and new Graphic Art processes.

Each one of these six subjects has been assigned to two committee members located in different cities or districts. They in turn are to confer with their business associates and report at general sessions of the Committee.

Subject No. 2, "Sampling," has been assigned to us and a merchant in Grand Rapids, Michigan. So that we might properly reflect the viewpoint of members of the Pacific States Paper Trade Association on this highly important matter, subcommittee members were asked to serve in all of our trading areas and such reports as we submit will contain their recommendations. Now serving with me on this Subcommittee are:

Messrs. Lew Gronich, Los Angeles; W. G. Lambert, Salt Lake City; J. W. Murphy, Portland; Charles Pritchard, San Francisco; A. B. Rogers, Spokane; J. W. Thompson, Seattle.

Your Subcommittee members, after

discussing the subject at their respective association meetings, conferred today and from their deliberations these conclusions and recommendations were developed:

Where dual agencies exist, mills should care for the distribution of mill advertising, listing all agents on all of their promotional material. The committee approved the plan for the preparation of a standardized form for the maintenance of mailing lists. The committee urges the preparation of sample books of mill brands showing only those items stocked by the merchant, and the committee feels that as a step in the right direction to reduce unnecessary expenditures by the mills, merchants should survey their territory to determine the amount of material their markets will conservatively absorb and confine their requests to that quantity. The distribution of such material at merchant's option should be made by his salesmen or direct-by-mail from the mill.

As the year progresses, we are going to be asked to consider different phases of sampling and all of these committee members have pledged their support and

*Executive vice-president Pacific States Paper Trade Association. Presented at the meeting at Del Monte, California, May 14th-16th, 1936. Vice-President Zellerbach Paper Company, San Francisco.

have agreed to get the feel of their own particular group on such subjects as we may bring to their attention. It is the hope of the committee headed by Mr. J. H. Brewer, that ideas and plans will be developed whereby printing paper sales may be increased, and while there is a feeling on the part of some that merchants may hesitate to tell of proposed selling programs, if they realize that by contributing the benefit of their own experiences they naturally would get the benefit of others, in the long run the benefits that will result will be very, very far-reaching.

As I understand it, the committee is going to make a study of ways and means of developing the sale of better papers. We are going to try to determine what lines can be handled by printing paper merchants as legitimate lines that will enable us to step up our sales volume without increasing our selling costs to any extent, and we also hope to survey all markets in the hope of determining new outlets for the many products which we now are carrying on our shelves. (Applause)



VICTOR E. HECHT
Vice-president Zellerbach Paper Co.
Executive vice-president Pacific States
Paper Trade Association

BUSINESS IS GOOD

"The only thing I know about the paper business is that it is mighty good," said Vernon Scott, of the Packer-Scott Company, Portland. "We are kept jumping all the time to fill orders and that is all there is to it."

JAGGARD MARRIED

Belmont P. (Doc) Jaggard, San Francisco representative of the Hammermill Paper Co. and the Grays Harbor Corporation, was married July 14 at Grants Pass, Ore., to Mrs. Lena Schaefer Maze, a school principal of Modesto, Calif. Mr. and Mrs. Jaggard spent their honeymoon on an auto tour of the Pacific Northwest and returned to Oakland late in July to establish their home there. "Doc" Jaggard is one of the very popular members of the Pacific Coast paper fraternity and his friends everywhere are wishing the newlyweds years of happiness.

AWARD of CASH BONUSES or MERCHANDISE GIFTS to PAPER MERCHANTS' SALESMEN by MANUFACTURERS

By A. P. SPITKO*

The practice in recent years, inaugurated by several manufacturers, of offering cash and other prizes to merchants' salesmen on sales of their particular product, in my opinion, is to be condemned. Salesmen, who are paid a salary or at least a guarantee by the merchant, should confine and center their efforts to sell the full line in the merchant's catalog. The offer of cash and other prizes by manufacturers naturally will detract the salesman's attention and efforts from the merchant's line as a whole. I look upon the offer of cash prizes as subsidizing the merchant's sales force in favor of the manufacturer, to the detriment of the merchant's business.

The old system of offering premiums, or so-called "PM's to salesmen" on sales of obsolete or out-of-style merchandise, was recognized as good business on the part of operators of dry goods, clothing, millinery and similar establishments. I have known paper merchants to make use of the PM system to stimulate the salesmen in becoming more active on lines that the house desired to discontinue, although such lines were neither obsolete nor out-of-style. Paper of any kind is always in style and can be put to some use at its full value. The PM system was rather general in an age gone by—today business is conducted upon more scientific lines. Paper today is made with

more certainty for its final use—else it goes back to the beaters. There are less experiments thrown on the market—therefore, less material for which there is not some ready demand. The use of the PM system by paper merchants is fast becoming obsolete. Why then permit and assist the manufacturers to revive it? There may be an excuse for the merchant to pay a PM to his own salesmen, but there is no excuse, that I can see, why any manufacturer should be accorded the right to appropriate, subsidize and bribe the sales force of any paper merchant, to push and favor some new brand or new line of merchandise that at times conflicts with large stocks of comparable goods already in the merchant's stock, and by doing so force other slow moving products into merchants' warehouses. This in turn may force the merchant to place another line on the job list, perhaps to offer his salesmen PM's to move it. Thus the PM's start going 'round and 'round at the merchant's expense—coming and going.

I believe in putting on the brakes before the momentum is too swift and to discourage the awarding of any kind of bonuses by manufacturers to merchants' salesmen.

*Presented at the meeting of the Pacific States Paper Trade Association, Del Monte, California, May 14-16th, 1936.

THE SIGNIFICANCE OF THE ASSOCIATION

By C. L. SHORNO*

In my humble opinion, a paper merchant who is not a member of and active worker in a paper association is like a "man without a country"—a very unfortunate position. The contacts made with his fellow merchants at the local meetings and the Pacific States Paper Trade Association meetings are very beneficial. In addition, he secures much good from the national organization whether or not he is able to attend its conventions. From this contact, whether direct or indirect, he gathers valuable information, impossible to secure otherwise. Moreover, a member has the added advantage of being served throughout the entire year by competent paid officials who furnish bulletins and other data, keeping him posted concerning all significant happenings in the paper industry. In addition, he has the privilege of presenting his problems to those trained workers, knowing such matters will be given proper consideration.

The age-old expression, "in unity there is strength," is further amplified by the splendid accomplishments of our associations. It is interesting to know that most successful individuals and firms are "association minded," meaning that they are association supporters. The leaders in our association are successful men con-

nected with successful firms, not necessarily the largest, but leaders in their respective fields. My observations are that few worth while people or firms take the attitude of "let George do it," or "want a free ride," or stand under an umbrella held up by an association of which they are not a contributing member. I am sorry to say, however, there are people outside of associations (so-called merchants) whose purpose is to indulge in unfair practices. However, if as a result of their unfair practices the market become unstabilized, they are the first to complain. It is to be expected that these people do not contribute to this or any other organization. Nevertheless, we have them to contend with and their very existence makes it more necessary that the activities of our associations be extended to the greatest possible degree.

Association members represent the trained division of our industry while those who are not members might be considered the "awkward squad." Just as an athlete's ability is increased by training, association members, because of their training are successful, achieve more and rise to higher levels. Perhaps the greatest proof of this statement was evidenced when the NRA was instituted. The Paper Industry being properly or-

ganized was one of the first to be recognized. Why? Because its members were trained in association work, the industry was organized and as a result they were easily and quickly fused into the national act.

In reading the minutes of the last National Paper Trade Association convention, I gathered the theme song was 'Association and more Association,' which is easy to understand, as this work always has been necessary. But with the passing of the NRA it becomes more important—we simply cannot survive without it. If we expect to prosper, we must meet our problems with a united front. True, occasionally we meet a paper merchant who seemingly has ideals but who is not entirely sold on the value of an association. Upon investigation, however, it is usually discovered that this individual is not conversant with the subject, does not know what the association represents or understands its purposes and accomplishments. When shown the inner workings and brought into camp, such a person becomes most enthusiastic and wonders why he has not always belonged.

There is one thing, however, which should be taken more seriously by those who have benefitted from their long contact with the association as well as new members. You cannot take out more than you put into your association and as a safe investment, you should not expect to take out as much. By that I mean, we should be building a surplus of energy and strength—a reservoir to be drawn upon in case of emergency. If we keep this thought in mind and work along such lines, we will succeed and have much for which to be thankful. At the same time, we will have the satisfaction of knowing we, as individuals, have been and are doing our part and are, therefore, entitled to whatever success may accrue as a result of our association activities.

In conclusion, may I say it should be the aim of every member to contribute, not alone from a monetary standpoint, but with his time as generously as possible to association work and to enlighten those who are not members as to the benefits to be derived from uniting with us. Such endeavor will result in mutual benefit.

*Manager, Blake, Moffitt & Towne, Portland, Oregon. Presented at the meeting of the Pacific States Paper Trade Association, Del Monte, California, May 14-16th, 1936.

MAXWELL AND SKINNER

D. L. Maxwell, San Francisco, The Tissue Co., this year took his first real vacation since he joined the company 19 years ago. He went to Forest Lodge, up in the Mt. Lassen section of northwestern California.

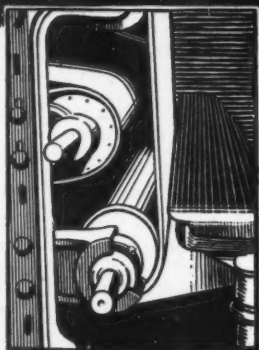
E. B. (Ned) Skinner of the Martin Cantine Co., who has joint offices with The Tissue Co., at San Francisco, was in the Pacific Northwest in July and wrote to San Francisco that he was finding a lot of Republicans who used to be Democrats.

L. A. VISITORS

David Maxwell of The Tissue Co., San Francisco, was in Los Angeles toward the end of July. With him was Louis Colton, director of purchases for the Zellerbach Paper Co.

Another San Francisco visitor here about the same time was James Gray of the Paterson Parchment Paper Co., accompanied by his young son.

ORR FELTS



The Right Felts

You will never be able to reduce your felting bills to the vanishing point but you can reduce them—and probably more than you think.

Adopt the right felts, remembering that the right felts have the right warp and woof, the right nap, the right tensile strength, the right porosity, the right resiliency, high resistance to friction and nip wear.

In other words, go into a conference with your Orr representative, and you will come out with the right felts—and start your felting bills on the down grade.

The line is Complete

Pacific Coast Representative: WALTER S. HODGES
Pacific Bldg., Portland, Oregon

THE ORR FELT & BLANKET CO.
PIQUA, OHIO.

£10 NEWS PRINT IN ENGLAND

News print paper prices in England have been fixed for the next two years at £10 a long ton delivered, according to information from London. This price is substantially above the level ruling in the United States.

The English price of slightly more than \$50 a long ton, delivered, is equal to about \$45 a short ton, compares with \$41 a short ton which Canadian mills now receive from United States customers.

FINLAND PROPOSES CONTROL OF PULP WOOD EXPORTS

According to a report from American Consul Gray at Helsingfors, the Central Association of Finnish Farmers appealed to the Finnish Government to institute a control on pulp wood exports. The Association believes that an international agreement should be drawn up to restrict the supply of pulp wood and thus avoid sales at cut rate prices. It is stated that restriction of pulp wood exports is of importance also from the standpoint of the supply of raw materials for the Finnish chemical pulp industry.

FOREIGN PULP EXPANSION PLANNED

The reconstruction of the Munksho A/B sulphite pulp mill at Jonkoping has been completed, according to a report from American Commercial Attache Charles E. Dickerson, Jr., at Stockholm, and work on the extension of its sulphate mill is under way. Reports in the local Swedish press are said to indicate that chemical pulp manufacturers in both Sweden and Finland are planning on new extensions and plant improvements. In Finland many extensions are said to be contemplated and in Sweden several mills are improving their plant equipment. The latest news is that Mo & Domsjo A/B, one of the largest manufacturers of sulphite and sulphate in Sweden, will soon considerably increase the sulphate production at its Husum mill. This mill was built in 1916-1918, and modernized and enlarged in 1926 and 1934. The present annual output of the company amounts to about 105,000 metric tons of sulphite and 60,000 metric tons of sulphate pulp.

WEST JOINS INSTITUTE

Dr. Clarence J. West, Director, Research Information Service, National Research Council, has accepted appointment as Technical Editor of the Institute of Paper Chemistry affiliated with Lawrence College at Appleton, Wis. Dr. West, who has held his present post since 1925, will be in full charge of all publications, bibliographies, and preliminary searches at the Institute.

Dr. West has been editor of the "Annual Survey of American Chemistry" published each year in book form by the National Research Council, since becoming director of their research service. He began his career as research chemist for the Rockefeller Institute after taking his Doctor's degree at the University of Michigan. During the war he was made major in the Chemical Warfare Service, and is now a Lt.-Col. in the reserve of that branch. While on active service he prepared a series of monographs on chemical warfare, and is co-author, with Brig. Gen. A. A. Fries, of the only text on that subject.

For two years Dr. West was director of the information service of Arthur D. Little Co., consulting and manufacturing chemists. He has also been associate editor of Chemical Abstracts. He is chairman of the Committee on Abstracts and Bibliography of the Technical Association of the Pulp and Paper Industry.

His publications include "Bibliography of Paper Making, 1920-28"; "Reading List on Paper Making Materials"; "Classification and Definition of Paper"; "Bibliography of Bibliographies on Chemistry and Chemical Technology, 1900-1928"; "Handbook of Scientific and Industrial Societies and Institutions in the United States"; and "List of Industrial Research Laboratories in the U. S." Periodical publications include numerous special bibliographies in the Paper Trade Journal, pamphlets, and articles.

Dr. West assumed duties at Appleton on July 15. He will be the first to hold the post of Technical Editor at the Institute of Paper Chemistry.

CERTAIN-TEED PLAN APPROVED

Stockholders of the Certain-teed Products Corporation at a deferred special meeting in Baltimore August 6th approved the plan of recapitalization proposed last June. Approval was given on behalf of more than two-thirds of the outstanding preferred and common stock, voting separately.

The plan was designed to eliminate the consolidated deficit of the corporation and its subsidiaries, to fund the accumulated arrears of dividends on the preferred stock and to eliminate the accumulated arrears in the sinking fund requirements for preferred stock. It also will remove the future requirements for this sinking fund.